ТЕОРИЈА — ФУНКЦИЈА



EVENUOTERA
MATEMATINHIOI UNCTUTYTA

Ep. 1143 3269

Meopinja opyrirynja

Dersabarua, Devapobuta, vinsimis opopi yotuba opogo.

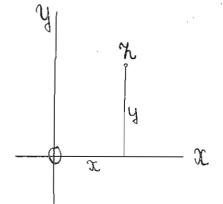
Jeoneupucko apeganalonane unaturaphux koruzuha

yozumo jegny umazunapny konu-

7=x+yi

The champajno peantu geo ar Ronwrute x 1200 aucusury, a umatuhaphu geo y Rao opquhany, ottga, ano apertecemo oc 140 oco-

busty attaglico, y tha owouthy opgustation, good jamo fegty thatiy i u the tradition cometine ce go Tevinetipulieu topegutabto unaturapity isonututy i thatise i hasuba ce



maga representation apendiabeture unatu-Hapite represente à une meteum adpuncion 30 3 Hanse x-à u ya bastou vito uciao Descor-

tes-obo apabum izoje ce gavapednije y antonumurity Leomempuju apema mome 3 Hajyhu 3 Harse xa u ya 3 Hahemo y 12 ome he, obom ce obpacy monte gain jou jegan oce ilbagpanting marien a Hanasum. Eucono peantum Ronwellhama Ogibbapajy wartel Ha ocobusta OI , rucio una cuntaphim war Re 140 ocobusta 04, a Romanerectum uma-TUHAPHUM KORUZUHAMA OGIVO Apajy war ree y jughom og reurupu rebagpantia.

Unaturapire Ronweurte moig ce υρφανιών α ποικόρια ποπαριμικ κυτρομι-

Haita Uperitocitabumo ga je umaturapita isonuruta pabita

x=x+yi

Ogrobapajyha warea z outre ogpetienta anso juj

3Hamo aviner g u aonapitu yrav o Mehytum us course ce lougu ga je

T= SWB

4= 9 mo

Заменом у игразу за х добија се x= x+4i= g(ws0+im0)

Ilag 3Hamo garene 8 u 0, ortga je x ogpehere wondy obor ospacya. Ha worneway drus, jup ce apenia Eulez-vour obpació 3140 ga je

coso+imo= e

Uperus wome rong stramo Tower gu yioo b jegle unaturaphe resourure, una ce resourur Ha More Hauncanin y obrusy

Ronwenta e aperationa, nos unas ce us chure bugu, ogui ojame inazere & og itozeni-Ra u Hasuba ce <u>Mogyo</u> Ronuruse r. Ytao o je ytao Roju Tpagu mogyo ca ocobunom atyucia; tuaj ce yuao Hasulaa capiymention unaturapite isonusure & apena aome je jeg-Ha umatuhapita innurunta Totatyto ogpeperta reag juj ce sita mogyo u aprymetanti. Mogyo unaturapire isonurure anatipa ce ybeix icas assumuban, mehymum apiyme-How O mothe unauto ma Rande Cheathouse 00 0 00 ∞.

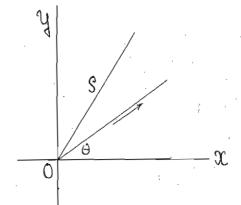
Orebugito je ga peantum u ao-

menutu publiku lignu unu y otimite 2/211; pearture à légamentem rennerment ogto marito réares ma rennerment partie une o-Capajy aptymenta Tunu y outure (212+1) It! mustustaphum resurventama respect y cucio unaturaphe u uno ca uo suu ubrum umatu-Haptum gen vouma ogtvoapajy aptymenuni 2 uni y vanuire \$ + 2 x 1 ; Ha two nearly ructio unatitaphem renneruhama ca Heta-Tymestain 2 unu y valuare 2+2127.

Benuruta jegit umaturapit ironurute yestu ce y viime in benurutu we-Hur mogigna. Mareo sa jegity ce unaturap. Ity RUNURUHY Rayce ga je pabita Hynu, anco je wen mogyo paban nym wij ano ce ogio-Eapajyta takka taknata ca tozetikom. Wares ce ucin sa jegly unaturapity resourzusty tranke on je dechthajito benusia, ano juj je mogyo bearpajito benuru ū. j. areo je ogtobapajyha wazira bearpajito ganerra og wretika. Sa jegity ce tiareby reonwenty reaske ga paule une olaga apena ilome

Butano Hum Bonusuriama ogiobapajų apty ja nu ce ora yganyje unu apudnuskyje aurentiery. Unes ce some you apendusupa aaga, mopa ce y now opene avont He camo ranso joj mogyo parte una otionga, beh u reason roch aptymestant partie une o-

aaga, jep ce ogivoapajýha mariea moine og tweether ygana-Cours y pastum upab yuma ans scohemo gay upaniumo upeda strama y 12014e ce



VIta apabyy og toretales yganyje tij les Rub aptymertani y niome sagporaba sajey-Ity ce mariey raske go pacine y apabyly gation approprietion o are ce ona ygarogic og to retilies y jegitom ciranitom apably isoju as ocobustom OI Trough years o.

Uperasar og apaboytrux revopigu-Hartia Ha tionapite a obpartito lopur ce uctio OHORED 1200 y AHARWEWEHY TEOMETEP WILL MONEO 1º ano je runwelista z granta y

ogrand

Z=x+yi

va ce imparfice ya ce maanine y obrussy

us obposaya

40 = 4 x + 45

2º ano je reshurinta & gama y o-

gumen

7=860i

τια ce τηραγκα gra ce Harrane y υδημική

umahemo renusure a u y us obpasaya x=9 cuso

y= 8 +m0

Paryncire pagne ca unaturaphun izonuzuna

Ca umazuntaphum reonuzuntama moiy ce opiumin naire pagne rao u capeanthum camo uj otte obgu reomanuseobatruje.

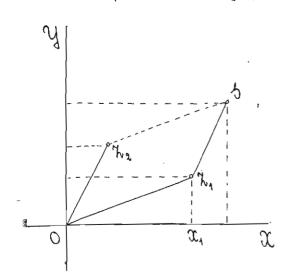
> 1º <u>Cadupane</u> a <u>ogyzumanse</u> que du ce revrurente

 $x_1 = x_1 + y_1 i$ $x_2 = x_2 + y_2 i$ $x_3 = x_5 + y_3 i$... Caspare, casepy un ce sacesto unistrutapitu a sa cese pearitu genusu wares ya he sawa

 $x_1 + x_2 + x_3 + \cdots = (x_1 + x_2 + x_3 + \cdots) + (y_1 + y_2 + y_3 + \cdots) i$ Tomas an orelugio basku as ina iranebu
bunu shayu peanitus u umatunaphux geroba, ao ao uais basku u sa ogy sumane.

Mehyaum cadupanse u ogysumanse Moisse ce Epyman u Termenipujaku ita oboj HURUH: Yorumo Hojape gle aurile $\chi_1 = x_1 + y_1i$ $\chi_2 = x_2 + y_2i$

u obenezeumo ux y pabitu uniatustapriux



Two never the lieux x_1 cautabuno ca toretitor , sutium us x_1 , tuby servo tapanevery apaby $0x_2$ us
be not ognepumo
og utojane x_1 5= $0x_2$,
tanto godujena tar
12a 5 uma ce cina-

upatu 1200 3bup taransa 2, 4 2, jep 0140 uma 1200 atayucy

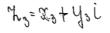
 $x_1 + x_2$

a rear opgunating

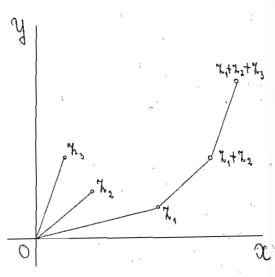
y1+ y2

12000 min ce un us course bugu.

Spoj turara



u ozhorumo we wor lee y opojitoj pabitu. Za nouxobo cadupane unano owwwe apabuno: obeneske ce otte worte izoje wpeda cadpawa, uc

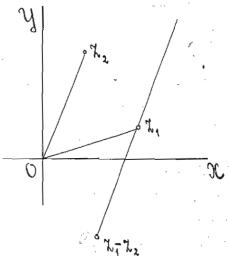


izu, winegwa warisa isoja perynwyje ouhe

He maranea cano o than pas nurson muso ce theramans gyrunta y

apertamano gyskusta opimu y cyapomitum upabyuma izay uma ga ce ogysmy izonu-

 $\chi_1 = \chi_1 + y_1 i$ $\chi_2 = \chi_2 + y_2 i$ parque ce obanzo 1200 muio fe Do 12 asanto 14a

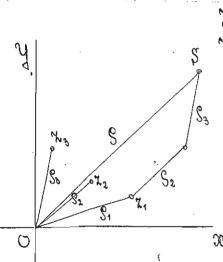


chuyu.

Thorso ce hand page trag ce uma una subuparse a organismons: your tipeda official subuparse transporter to nut un ante transporter to nut un ante transporter to nut upa organismon transporter to nut un ante nut upa ou or other transporter to nut upa ou or other transporter to nut upa ou ou passanta

Obarebum Teometapujurum vadupa nem goduja ce y uatru max jegita bpro baskita tieopema izoja zuntu benuse yonyte y tieopuju opystizuja. Iterza je gato butue umatunapitus xonurunta

 $\chi_1 = \chi_1 + y_1 i$ $\chi_2 = \chi_2 + y_2 i$ $\chi_3 = \chi_3 + y_3 i$



There are are and the to the common the transmity running run construction of the cons

remita. Us envise ce lougu già je ybere:

S < S1+ S2+ S3+ ...

sume le doisorrante que abontra por mostra meobema mondro gers le manon od sonba moditur montra desse le manon od sonba mo-

Ga como Ha mecino obux cadapana amanu og grando Ha manu og grando manu ou oppyresujy chury chury chury perynamia, jep mogyo soupa jabona ce ybere reas quijatohana a o-citaru mogynu ras catparte tonutoha, a o-rebugito je ga je quijatohana ybere reporta og soupa aparta.

г. Уножеже.

Haphux ronwenta: $7_1, 7_2, 7_3, \cdots$ Hatumunu ux tomohy muxubux tonaphux roopgu-

put un vanity running $x_1 = g_1 e^{\theta_1 i}$ $x_2 = g_2 e^{\theta_2 i}$ $x_3 = g_3 e^{\theta_3 i}$ gaje an are un admitote und metry cube in gooti-

 $\chi_1, \chi_2, \chi_3 = g_1 g_2 g_3 \dots e^{(\theta_1 + \theta_2 + \theta_3 + \dots) ()}$

us reta ce bugu obo tipabuno: umatunap.

114 ce 120 nurunte meby cobom mitore, 120g um
ce mogynu meby cobom tom tom tore a capiymention cadepy.

3º Gerense

Herea cy game goe umatutapite inorweute χ_1 u χ_2 ruju cy mogynu g_1 u g_2 a aptymentu θ_1 u θ_2 moneo ga je $\chi_1 = g_1 e^{\theta_1 i}$ $\chi_2 = g_2 e^{\theta_2 i}$

Gerdon ce grouja $\frac{\chi_1}{\chi_2} = \frac{S_1}{S_2} e^{(\Theta_1 - \Theta_2)i}$

us reta ce bugu voi apabuno: gle ce umaturapite ronuruste gene mely cosom rag um ce moggin avgene a aptymentan vgysmy.

4º Cucuenobane

Herea je gama umaturtapita ieonu. zurta z ca mogynom g u aptymentiom θ $\overline{u}_{i,j}$. $z = g e^{\theta i}$

Us voe ce jegitureme con con guduja

Ln = Su Guer

lo reta ce bugu voo tipaburu: umatustap ta sururusta ce attetetyje segtum opojem rag jij ce mogyr utetenyje a aptymenati tumstooku tium opojem

5. Roperobane

The nature to Haruh or ebugito ga whatushapita isonwenta isopenyje jegum opojem isag ce inogyo isopenyje a prymetiani uogenu una opojem

> 6º LOTO PUTUMULO 160. Herra je gania umatunapina 180.

weunter

Toman de abema Enfer-noom orbación esseri = cos rest+i + i + i + i = 1

w Μυγιεμο ga Tumemo 7= geor 1= geor ε 2 κπι = g e (θ+2 κπ) ί

Puryga notapumucansem log x = log g + Oi + 2 kti

es reta ce lougu voo apabuno: jegita ce u.

maturapira revoluziona notrapionimente user oproj tryana 21/1. Oner je oproj retraturban Je 12 ma reanzali view spoj.

Us vivia ce usbogu rareo u odp 3any 120ju Ham Hettocpegito gaje notapu tham Opoja

x=x+yi Jep 3 Hamo gra je 3a rojeta 8=123+43

Upema wome je

 $\log(x+yi) = \frac{1}{2}\log(x^2+y^2) + i$ weaty $\frac{y}{x} + 2RIII$ y obpacy ce bugu à obo: arc Je opoj z pewian u absurauban, moine ce y Bettir 0=0 tiranzo gos ce gostija

log 2 = log s + zieili Doman ce g aviendais cà à mo ce u logg uma conadiponion rav log 2 tra ce godinja log 2= log 2 + 2 HAL

u maj vopasay aviensyje ga log z uma Secrepajno minoro espergnication revie ce gostiga jy reing ce jegnoj vy roux goga : ma rearealer

Raig ce notaputamy mogyna goga: aprig netob & je it u orga netob notaputam i Hair bune opoj 2 RT admitoreno ca i ma Secrepajito mitoro epegnocia og rojux itu jegita Huje peanita.

Myrryuje mão zalouce og UMOTUROPHUX RORUZUHO

yuja I(2) jeghe umazunapite korusunte z=x+yi

yu, oba to itacyże f(x) = f(x+yi)

They he uspas uniative dois pearity geo of u cloy umatunapitu geo à transo gaje

f(x) = f(x+yi) = 9+Qi

Y			0	
	· 0 %;			° 3(x)
0			0	P

xuy. answ. cay

palitu to roskaj jegite trasise geopunucon reopportunitama a i y, a y apytoj pabitu Roopgunamama Pu a, orebugito je ga charry warren z y upby pab-The ogrobapa to jeg the marker for y gpy-Toj palotu thoje brebugito u cauta mino lear le dama marisa & ope bapita voita a ma choje a u y ; armino Pull sabuce og xuy, to areo y retina ementino xuy RUDPIGUHATIAMA TIARRE X, I u a godujajij are the pegitour sometum y apyinemul ogpéteire opergitour u are tie épergitocario oderestiumo y apyroj palitu, umahemo ogrobapajyhy marky Fa).

Unitable je cay marso ce, may je gama chyprografas u worozkaj market y apby pavitu, moite og pegumu avnorcaj Uspasu Pu a ouhe ozelougno opyniewuje og ogtobapajyhe marke y igpytog pabitu. 3agamar ce orebugito chaquetta un que ce yomeno goe pal- ogpege uspasu Pu a sa gang chymigy Hu: paban apo- I (2). Tha ce ogpegoa mome usopinum Ha mensule à u pa- pasite Hazuste og iesjuk he sum a ogécfour opynishme their sac bedan sac about about about Fai rge je y mobij pogu game opystreguje Fai Hajrembu cy

og was Harmta obu:

TO HOUSULH

Tipeda wispumu vite viepanjuje 1848 CY UCROSONE CONTUN OSTUROM GONTE chyitherique F(x) u to chowering the valor yuja Trytucautu sa cede ranvole desi, a · sa cede ranhobe ca i ; apou soup rannouvou Suhe 9 a gpytu a 30 gamy opytheryy F(z) Upumepu:

1. Hahu Pull sa chymenyy

* F(x) = x2

Obgu je

 $f(x) = x^2 = (x + yi)^2 = (x^2 - y^2) + 2xyi$

tra je apema trome $g = x^2 - y^2$

2. Hahu Pu a 3a opymerynjy F(x)= 1-x

 $f(x) = \frac{1-x}{4^2} = \frac{1-(x+yi)}{(x^2-y^2)^2} = \frac{1-(x+yi)}{(x^2-y^2)^2} + 1x^2y^2 = \frac{1-(x+yi)}{(x^2-y^2)^2} + 1x^2y^2 = \frac{1-(x+yi)}{(x^2-y^2)^2} + 1x^2y^2 = \frac{1-(x+yi)}{(x^2-y^2)^2} + 1x^2y^2 = \frac{1-(x+yi)}{(x^2-y^2)^2} + \frac{1}{2} + \frac$

 $=\frac{(x_5-\lambda_5)_5+11x_5\lambda_5}{x_5-\lambda_5-\lambda_5+x_5+x_5\lambda_5}-\frac{(x_5-\lambda_5)_5+11x_5\lambda_5}{5x^5-\lambda_5+x_5\lambda_5}$

wa je vogu

 $\mathcal{J} = \frac{(x_5 - h_5)_5 + hx_5 h_5}{x_5 - h_5 - x_2 + 2xh_5}$

a= - (25-115)5+112,115

3. Ogpegum Pu & soi opynkyujy F(z)= logz

Obyu je F(x)= log x= log (x+yi)= \frac{1}{2} log (x2+y2) + 0i + 218 Ti

itia je

 $\mathcal{T} = \frac{1}{2} \log (x^2 + y^2)$ Q=0+2RIL

4. Ogpegume Pu a sa chynneyujy F(x) = mx

 $f(x) = \sin x = \frac{e^{xi} - e^{-xi}}{2i} = \frac{(x+yi)i}{e^{-xi}} = \frac{e^{xi-y}(-e^{-xi})i}{2i} = \frac{e^{xi-y} - e^{-xi}}{2i} = \frac{e^{xi} - e^{-xi}}{2i} = \frac{e^{xi} - e^{-xi}}{2i}$

= $\frac{(\omega x + i \sin x)e^{-y} - (\omega x - i \sin x)e^{y}}{2i}$

= cosa e-4-cosa e + 1 [ma e-4+ma e4]

$$= \frac{\sin x (e^{-y} + e^{-y})}{2} + i \frac{\cos x (e^{-y} - e^{-y})}{2}$$

$$Q = \frac{\sin x (e^{-y} + e^{-y})}{2}$$

$$Q = \frac{\cos x (e^{-y} - e^{-y})}{2}$$

2º Hazult

Usepuin ce ca opyticymon F(x) man ba jugita otiepanjuja troche respe ce nanque! pasybajajy pearth u umatu Haptu geo. I a ogume. Us godijertir pesyntantia ogpetyje ce wa! ga Jul 30 apbolimity opynicyjų.

Upunepu:

1. Ogpeguna Pull sa chynkynjy

anso ataloumo

VI = Pt Qi

το σου πρακ κουγραρωρισμο αρδιήα ce x=92-02+240i

anso the rebox autours a contigue une they say gobija ce

x= x+yi=92 a2+29ai

ONO yjeghazumo ma neby u genty copani

rnambe des i u rnambe ca i, goduja ce $\partial_{x} - \partial_{x} = \alpha$ 290 = y

Ita varj noruh umamo gbe jegharuje us Rejux ce moig Hahu goe HeriozHome Tul. 2. Ogpegume Pull son opymeryujy F(x) = log x

Umaheno *log = log (xtyi) =9+Qi

atyi= efter= eft eai= = e9 (cos a + i ma)

Apema vione mopa duvide

equisit = x erma=y

Ogame je

6 = x + y2

um

 $23 = \log(x_s + h_s)$

D= [[(x, + 1/3)

Mais marso us apegroua jegitarusta je ty a = m

unu

Q = ovec to = 3. Ogpegum Pi a 30 chynryy Umahemo ex=9+ai

unu

e"(wsytimy) = 9+ai

a ogovine

9= exusy a= exmy

3º Haruh

3 Hajyhu ga je gama opynizyuja F(z) usbecità izombustanjuja jegite opynneyuje 9(2) sa kojy ou stianu perantu u umaturu ger moire ce y benuron opujy cryzajela ogpeguan Pula u za camy gamy chyltherydd F(2)

apumepu:

I 3'Hajyhu ga je

u ga je

q(x) = q(x+yi) = M+11°i rge cy Mu n° austrana u gamu mahu Pu a za opyniewujy F(z). Umahemo Spojumen u unenumen un mitoritumo ca M-Mi goduja ce 2(2) = M5+ N5 = M5+ N5 - M5+ N5 apenia vione unichemo que je sa goury chyitelyy

G=- Mst Ws

I Ogpeguin Pu & sa opynityujy
Hz = eq(2)

31 rapyhu ga je

1 = M+ Mi

Unahemo F(x) = F(x+yi) = e ((x+yi) = e m+ni = e m e ni = = em(cosp+imm)

Upena vione je

a= emmn

Ti. Ogpeguin Pu Q sa chywryuyy

F(x) = log q(x)

знајући да је

(x)=14+18i

Umahemo

F(x) = F(x+yi) = log q(x+yi) = log(M+Ni) = = \frac{1}{2} log (M2+12) + i execty \frac{1}{12} + 212Ti

Upenia tione je $9 = \frac{1}{2} \log(M^2 + N^2)$ In x + 2Q = arc tg # + 2 RI

Musuott °4

Chenum apabogine noopguname or a h tourabhow isobbanyama & a p.

Иримери:

1. Tupasja ce Pull sa opymerzujy

3 Ham gu je y ūvraphum roopgunatiama areo je g u o mogyo u apiymenatu umatu-HOLDHE ROTURNIA

7=660r

Upena home Suhe 3(2) = 2m = 2m emoi = 3m (womo + i mmo) u apenua mome je

J= gm cus mo a= gm min mo

and hom je wind sa time ga ce tipelje The teropyuname any impede comenum

6 = 1 05+ A5 G = corecting =

2. Ogpegume Pu a sa opynnyuy f(x)= a0+a,x+a2x2+...+anxx are anethumo

godujamo F(z) = a, + a, geoi + a, ge e20i+ ... + ang enerie = 00 + 0,19 (ws0+ im0) + 0,92 (ws20+ +immo)+...+ angn (wono+immno) Outygo

9=00+0,9000+02°0020+...+0ng~0000 a= a, g, mo+ a, g, m20+ ... + a, g, mno

5°Hazun

3 Hajyhu peante u umaturapite genobe Herzonum opynthetycya u anethulomu y gamoj opymeryuju y ongrazy kag je oba Resided Rom du Haujuja to menyitur chynnBuja gemaba ce ga ce moi y in pasybajain peruntu u umatutapitu genobu u inume gobuin impassion Pu a Obaj je itarum stogast sa soupobe, pasnure, apousboge ut innumente bume opynienja.

Besa usmehy repetitiona tharrery werry paloru u retuana tharre fa

guissom of

Z= Xtyi

Remany x u y besonu jegtom chantom gamon penanjujom

Peranguja 1) apegatiano na ataga ozebnytho gegharuty came ayatame atazite & liconer H. ap. 12000 atazite & ca yentapom y aozeta zy tazity 3 Hazu jeghazustu

2=xtyi

abridadomir fedrosmità

22+42-22=0

The war war is a transform the segment of the segm

120ja gechunune mariey r gogamu jegharuty

Roja Muje Humaa gpyro Hero feignaruna try-

yorumo caga opynietyujų F(x). Herea cy Pu & west peantitu u umatustapitu geo taneo ga je

F(2) = 9+ Qi

Rosand ga marisa F(R) othery y chajoj pabitu jegity vapebesty trymany 3 Haru jegity ragnarusty 9(9,0)=0

120/12 geopunique camy my mymanoy.

1200 με ματρεσ 1200 μης ορα chα-12η παν 12μ τ η μεμή ραρμι ορτούρα οφρερεμ ποιομαί παν 12ε F(x) η ραθημι οργηγημικέ F(x), πω με σε εθυισμό σα 12ασ α παν 12 δησε 12ρεπανα η αθημή ραθημι

αρ μαριος σφρεθειτος αγιασκου e, ποραλε ce u ορισδαραζηλα τανκα f(x) πρεπαπι g coljoj publitu αρ μαριτος τανκουθε μαθρειτος αγιασκου g δαρασιασκο g αγιασκου g δαρασιασκο g αρασιασκου g δαρασιασκο g δαρασιασκο g δαρασιασκος g τουματι τορεσα τοματιασκος g τουκοινος g τουματιασκος g τουκοινος g τουματιασκος g τουμ

1º HORUH.

Herea je ûyûnana e gama y obnury $e^{(x,y)=0}$

u apenitocinabumo ga cmo za opymegujy F(x) ogpegunu ogiobapajyhe Puli reao opymeguje og x uy. Waga us tapu jegmerune

9 = 4 (x,y)

Q= 4x(x,y)

y; pesyntiati he outre usbecita penanjuja

regia apegatiabrea aguitarey mar ree. F(z).

apumepu:

1. Pag ce marira & dyge repensat na ao jeghoj apaboj C, y izanzboj he ce ay- u ao je jeghoventa aparkente ayuanse. waren Rependente warren 22.

Obgu je

 $f(x) = x^2 = (x + yi)^2 = x^2 - y^2 + 2xyi$

The toperns thome

J= x2-y2

G= 2xy

Ones de did Harrinta abage 6 coac + by + c = 0

offgia enumerationally a uy us figurarinta 3), 4) u 5) goduhe ce usbecita jegnazunta apytiviatetesta as Pull u ma jugnissusta дефинише тражену путаму.

mobagom

to reasely he ce missing repetitioned thanks F(2) = 22

Obgu je

J= X5-135

the enumunionships on a 4 y us as us a unione g= (10)2 - (10)

HUSTOH OS

Upenin andrum go je jegitaru The tryitance traville & grama y to applying 120. constructions

9(9,0)=0

cases y opythersuju F(x) cmenumo

tra ogpegumo ogtobapajyhe uspase sat Le Q 1200 Apyrtique og g u o, umah emo Hap.

2. Ones ce vivilea à repetre vio trumunagajoin guo us vipu jegitarente

P= 4, (9,0)

Q = 42(8,0)

goduja ce jegita prenaujuja usmeby Tu a u ma penayuja geopunume impassieny myworry.

Примери:

1. Ogpegnan ao 12018 by he ce aywarm 13pearam arsisa x^2 , kay ce aos-120 x 13pehe ao apxumegoby caupanu $g=18\Theta$

 $f(x) = x^2 = g^2 e^{2\theta i} = g^2 (ws 20 + i \sin 20)$ u üpema üvme

9= 82 m 20

S=160

u enumunazajom apomentoutus gu b us ubus apajy jeghazusta gobajamo jeghazusta gobajamo jeghazusty.

2. Ogpeguin to itareby ce trytta-Hou repetre transa 2ⁿ, reag ce transa 2. Repetre to scuttepoonuray coupanu

> Obgu je P= gn ws no Q= gn min no

The sumethone of the transmission of the sughernations of the sum of the sum

Q = an mino

u tuo cy acopametacopere jegnarust topaste-It tytuane.

3º HORUH.

Themicomatumo da se signaritha aginame C gaina y aapamemaparom obrussy H. ap

x= 1(t)

Tye cy hilu goe game apynityuje Themasocanabumo ga cmo ogpegunu Pu & marto ga je H. Up.

 $\mathcal{F} = \psi_1(x,y)$ $\mathcal{G} = \psi_2(x,y)$

ONED Y USUM JUZHONE UND CMEHUMD X UY
DEPHUM Spegheruma USPASHENUM 1200
CP (H)

u tile fegnorusk ce mory chatapatul 1200 trapornetiopere fegnorusk tipaskerk trytianse H. tip. Ogpegutur trytiansy tias-

12e 2º 12ag marier 2 otherje entity ruje cy trapamentapose jegnaruse

x=aust y=6 mt

Obgu je 9= x²-y²
G=2xy

TIA 1200 CMEHUMO X U Y GOOGIJAMO P= 0² cos²t - 6² mi²t

Q= 206 cost sint

u tion y tapaspeste tapamentapose jeg Hazuste azitasuste azitasusty tytiame y obruszy perayuje usmety Pu & , tapedaro bu camo us tocregnous jegitarusta erumu-

Besa usmeby sauloopencaulunuoaloopencaul ayaansa waxana z u Fa.

Sa tauxiey to karke ce ga je y chojoj pabitu oauconur jezity satiboperty aytaurolj pabitu oauconur jezity satiboperty aytaurolj, areo je oitucana nyr karebe tauriek to u tauram byze otiucana nyr karebe kopube suhuje, bpaha oteti tha ucay tiaz- ky to, apytum peruma tio he butu isag ce roema toretam peruma tio he butu isag ce roema toretam u sabpunta bpeghout tauraniajy. Sa tao bpeme tiariera F(x) otruje coopy tiyaarony u tapu tiom ce more yorumu obo govje:

1. Hothe ce gecum ga kay wariea x our we jegty reother gry y coojoj pastu, warra F(z) warethe otume jegty reotherypy y coojoj pastu.

2. Monte ce gecuttu que near mariea Fan ne

σαιοιμέν ποικταμρή η σουίνή ραθτικ beh μεσιτή υπιθυρεντή πηπατολή τως υπθεσπάτη πητε πους κυτά σε τως επίτα α βαβρώττα πακικά τις ποικκατισής.

Tohe ru ce unatur 1 unu 2.

crysaj sabucu 14 camo og apupoge
cpystrzynje F(z) beh u og obracum pabru
z y 120joj 12014tilypa byge otucana.

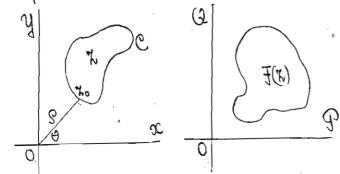
apumepu:

10 apunier: Herea je gama chylite

unior

$$\underline{f}(x) = G_x$$

apentionabumo ga r varie ma xarby



2 papitutiuss of gas con the two was and the cap contractions of a solution of a solut

je restraypa sauboperta una ma Tye y pabitu ayun otta ouna, gu o unase og opegnación gou on paciny u ouagajy tha pasite tharente u yuja ouem ce opahajy tha unae opegnación, usy-

F(x)= e^x we serve of isola isolatiche obeditoria e^x and in e^x and e^x are also as e^x and $e^$

1) unu ita bpegnocii poecizii)i

Thems mome you hu & vancyje 12014th upy 12070 140 valou to be ware. By egitoch 2) there ce y obnusy $e^{50}e^{90}i e^{\pm 2\pi i}e^{50}e^{90}i e^{20}$

Upena vome a subparte varise von repeval noy opynheujuje F(x) vornavajų ce mino situs zu gra reaging varisa x virucije ma reantly Pentruppy y chojoj partitu, ogrobapajyha vyvarnos varise F(x) buhe yberė revitarypa.

2º <u>upunep</u> Herea je gama cpymis

3(2) = 2h

rge je h ma reuneba rentamanuma. Tycumumo ga a viruue santoopeny ayraansy toreb og bpegroume

u pasnusyjmo voa goa cnyzaja:

Λοιμενος πρεπποντιαθυνών βα πηπακιατικ υπιενονούνα ποτεπιακ πιαχα hε υτεθυηρηνο ποτε τα ζο α θο ; πρενια πονιε υτεθυηρηνο χε γα hε τε α ποτε επίτα α παρμιτα θρεςποτε τρηγηρημές $χ^{\lambda}$ πα νια κακον δανο λ. ποτεναπαπα τε τα βρεσηνομην

muio 314aru gra varrera F(x) vaucyje zambo

perty tymanoy.

2) chyzaj: upentocia obumo ga uyinama inazire z ouizonaba uozenian liaga he uozenita opegitocia za z ita unj uyinamu omin

70= 90 eoi

a sabbinita operation onte 2 = 8. 6(0.+211)i

Прета йоте почет на вредний сружище

je F(x) Juhe

I (20) = 20 = 80 6 your

a supplientes operations onle 6, cyor 6, silve

unu

 $\overline{f}(x) = \overline{f}(x_0) \cdot e^{2\pi \lambda i}$

ans je i ma ransab yeo tuzutuloan unu stetantuloan 6poj, umahemo ga je

u apema mome

手(な)=手(な).

Maga ce garene ao zerata u zaspinta spegitoca chystrenie ao auchie restrancje maio zita zu ga u chystrenija o auchie restrancje maio zita he uspinta e uspi

ma jegitaruta toiraryte ga ce toretita u rabpinta bpegitour opymerynje ite toirna tajy muso sitaru ga opymerynja oùucyje ourbopeny trymany

Us tilvia ce usbogu vou ray

se gama opymerjuja zi ortga: a) ano je h ma 12 aneals yew Spuj, jegituj ma maneluj 1201thingpu y pabitu a ogévbapahe yber jegita izvitūypa y pabitu F(x); e) areo i Huje yes spoj tij ares je tio peanan payuistanan dru upayustanan, unu umaturiapar spoj, vitga: ano tigutama क्राराश्व में He ottronaba कर स्कारत , क्राराध्य F(2) vaucyje revitarypy, ita apvarub orko ayanona marke 2 oakonaba aremak, wariea F(x) où u cake y obom enyrajy oüboperty üyüany.

y voume ce beh bugu ga viiboреньст и затвореньст изтаже зависи He camo og obrusia beh u og camoi meuna rge ce Hariasu vavera x. y ucaro ope- lie ce goe openhour avieration u apeme us obota ce bugu u obaj baskan za- na vione ajvasno varise f(x) oune isonay. PROYECUR: Opystrujuja z' uma un ocobusty ga an una marien à vulume ma rareby resplante à vurencaba aveenure; maya he wypy wija otienovala to reman zabpinita mariea ogrobapajyhe ayurance chystrujuje F(2) goduja ce reag ce avremente épegitica a sabpuita the opynity is twinito you opojem

3º Thrmes: Heisa de doma donnis

Huja

F(x) = log x

Laner & outdine restruppy respe the outer value apremare; apremitia opegitour & duhe

la siabpuita opegitour oute

према тоже точенть вредност сругияwhije duke

F(x0) = log x0 = log (g0e900)

a salpuita opegitou duhe (5°60) = (00 x1 = (00) (6°60)

pa. Upentiocinabumo can ga revitaypa Tweetita boegitout & Sume

74= 80 (2. 22 m) i

Tureatina Epeginoui came opymerzuje ouhe F(20) = log 20= log 50+ 00i

a westa subpuita opegitua Juhe $f(x_i) = \log x_i = \log g_0 + (\theta_0 \pm 2il)i = f(x_0) \pm 2ili$ Your ou perynaiour unanu u gra ano Ha-uncom

f(x) = log g + Oi + 2 12 17 i

Obo ou ce 212 îli fabrino u y to retitoj u y 30opulty opegitoum, and y subpuity who type up a ut ma kunda you winth penu du jegnto siti bume umo gonasu oraz anta unu umatunapita opoja Tioreantuga jep ce o objutament orzo to retirea ybe- no Hajape reases ce apertoci tiorientare us hans sa 2i . Us to chequet objects 0 y to 0 y to 0 . Here 0 is 0 y 0 . Here 0 is 0 in 0 in 0 . Here 0 is 0 in 0 i

bugu le que ce trotetuita u subpuita bpeg- utieny Hoca He aviencialy a apena alone aguano marie F(x) ouhe omboperta. It us chem Ostarumo y pablu tivia bugu ce vouj sansnyrans: opyrthetytia titarney a ruje aj F(x) = logx

uma try ocodusty, gra areo a otime ma tuareo gra je rearrby revitingly report the parentropic as a + bi ware il cama he opystreguja vilucami jeg u vittarumo iroopguname warire x y nobom Hy Rostingpy; the apoints ones agains with the way, in the orelongito 120 % Outobalo to reman, orga opymerya

ouncies our openy universely gappuita marina me ayuname gobinja ce irag ce tozenity opegitoum gogo une ogysme 2171 apenia avine y revine je chuchy war. 120 % viucans chojy 1204 trypy.

4º <u>apuniép</u>: Herea je gama opyme

 $f(x) = (x - \alpha)^{\Lambda}$

1500 b Brothanie 4 112

 $x=x+\alpha$ y=y+0

Sameron y 2 040 accurage x=(x'+a)+(y'+p)i=(a+pi)+(x'+y'i)

Upba satpaga je a a apyta satpanga apeganabria bpegitour 2a y Huborn aunte my. are my operation us Harrisons us 2', in. chegnen opposion dais

п то ве порачато за стренотняе стоя стier y mariey a.

areo ca quo ostarumo tronet qu aptymenating wholen cultiments, unahems

Прета шоте пренеши почеших у а знаг y jugitiariente Tye Toy opurypune & come-Huma Ta ca

2= atgeor

TOPE 9 U B BHOROLOGY TOTE U COPTYMENTAL Y HUBORN CHOWNERRY. CARD HARM HUCY GUILDESTRU Babpuita warren we ayuname pastureuguo, ortga ducino apancopopinazinjy. usopieum ca

2= 2+2

 $f(x) = (x - \alpha)^{\lambda}$

CARD TORELLOAR TOPENECENO Y CO, OPYHIRUJUJO graman

 $f(x) = f(\alpha + x') = \chi'^{\lambda}$

Megymum voy and opystrzyjy mano tipe ucanimaru u apema ottome unio como Hainnu y apunepy 2º unahemo obaj pesymaan: izag tog mariza & onume y chojoj palitu Randy whatpy with the outlonder marry

roposa opyrteguja he mareobe onucomu jeg Thy ROHTLYpy Mehyurum and ROHTLypa 120-My vamme maries & vonevoluble mariey a, bit igia: a) circo je il ma recircolo igeo opoj, opythe yeya he warethe ourcount northypy; 6) is a way I truje yes opy, opyrtrayly a he our cante outboperty agrancy to return u bahe ce runningen

Upumegola: Orelougito je ga he tio Tge je 2'EpegHocii 3a 2 y HUBOM cucinemy. I ucin Sumi u ca cpynizyayom it (2-a) 1 rge Bipariumo ce cara opyrtienju je je it ma rearela roncitianita, cramo inter

he ce abreatha a subpatha beginous pasnurvoland sa etili.

5º apunep: Herea je ganta opyme

yuja

 $F(x) = \log(x-\alpha)$

are apertecens as remark y marky a,

функција постаје

 $\exists (x) = \exists (\alpha + \alpha') = \log \alpha'$ Upema offorme reasonation y topumery 30. godnjajy ce obu pesyntitumu: Bag & vancyje y coojy pabitu sauboperty uyunanog opynternije reoje he ocieta ocuculonia sachymenyia Fa) he vuncubanin sambupe tiboperty agitiancy. Upema tione jegan ity uni où coperty ayarany apena aome ma revu aonunon ao a 11 ap. go ru tyrtiania tiarire & He Utilbrolaba unu otiebroles mariey rea. Ocum mira, 306 purpa marier ube aymance pasamely ce og woretite casupisom = 28/1.

Us voux apumepa beh ce monte GENORUM SECREPHORITO INITUTO COGNIELYLIJA 1200 120 jux hemo 3Hautu ogitoc usmeby jegite a apyrè ayunane ape chera vrebugito je ga are gle chyrerennie ouncyjy sambopete

aymanoe, vitga u touros sóup, pasnura; upousbog, rentimer, isas u clou rouxubu izenu unevertu mareobe onucyjy samboperte ayouanse. Us mora ce H. ap. Herocpey-140 usbrigu obo: ano jegita opyntizyuja otucyje sambopety tymany, otga ma KURLINED JY TYTING CITETERUBANIL UNU MIHOskunu carantum opvjebuma u arano go dy este pergraname cadupanu, unu vgysumanu, godyestu pesyntiatin duhe

f(z) = (20+0, x+10, x2+...

ouncubake yeer saubopery uyuarby Ragiog i y chojoj pablic vanue santo. perty aguidancy that he chyray dumin osebugito u aa apymenyujum ieuja ce mulite * pastour y Mareroperus per

 $f(x) = \alpha_0 + \alpha_1 x + \alpha_2 x^2 + \cdots + \alpha_n x^n$

Hapabito apentiocaiaborajyhu ga kag x builty's closy samboperty aymany, voy peg He apectuage dumin revisto epteminant.

Transo, 34a ce ga 12ag ce cognisquie et et im t cost ...

mory pastourn y Marenoperut peg unu y lum

Thejriopulo peg

 $f(x) = \lambda_0 + \lambda_1 (x - \alpha) + \lambda_2 (x - \alpha)^2 + \cdots$ 120Hbeptentium 3a che bpegnocitu x. lipema vione che vie chystreyuje reas u rouxobe resindutioning gooduberte cadupaniem, ogysumanoem, mitoihensem genensem unu unevertubansem umajų urų ocobuny opa Raytog & oume y coojy pabyth same. perty aymany a come otacyzy sambope-He typinassoe.

Ca gpyte curpante wares have morghito je arnoamai bearonarito mito-To opymerquia neugl he umante my ocuoli-Ity go ray & vilue zambopeny aywarry view legite une burne yealphenux maranea, chymeinia valicine outline-Hy ayaaroy y chojoj pablu ware H. ap. ma rantoa romonhayaja godujerta ca-Supandem une ogysumanden, mhorcenem generoem, wieten ubanoem una respento-

banden us rearbor uspusa

(x-a) g

Tye ce apegar una ora ga for Huge yer opoj, apeguaidorahe opymeryjy roja he vaucubation outboperty againsty Ray ce & ospite on avrenier une marke a. Mehymum voge moine outre u usysettioners. anso du ce crysajiho gecuno ga y isom du-Hayujama chyzajito itecurante y pesyninamy pas nombetto cinetietta mareo humo sa che izomoutianjuje izoje ce us opyntrenjuje log & unu log (x-a) godyjajy twomoky wit redaporeus orepayya apeganabrahe функцију са отвореном аутамом. Kow caeyyanan chyraj Ha-

bempeno yussomempiase opymiyije:

ovec min , ovec cos x, ovecto x ovec who x Park ce, know with he though atto us burge anteope, chage the antedapare rumou-Hayaje rotaputiama. Upema tione ga nu gama chypreyija, ma karba dunia

ayaansa aarlee x, y chojoj pabitu, vaucy- sune su chynauchopmite opyitielyuje. je yber unu 17e virucyje yber u cama 3aalloperty agracing y chojn public, chysic yuje ce gene y gbe benure knace:

1º PRACIA: YHUCOOPMITE COMMELYUL 1200 120 jux je ayaranoa yberz zamboperta, u

2º 12 raca: Heyhuchopmite was mystauchopinite chyphrylije ieige umajų ty ocoolity ya leag & ouncyje sambopety the angle of the major maranea is their pabitu, ogivborpajytha ayaansa opystiegut aneo ypegumo voy jegitarusty umama k is valoopesta.

Wares H. ap. Con abrustione as h. a che opystickuje revie ce moty pastrumu y Marehopertob una Mejropob peg revya da dus resitbeprentium sa che operfitocuti La , reas u resoluriturgu tilux opystreguja Sure du yourpopmite opystreyuje. Ita apowith chytheryage Vz, Vz-a, Vz-a, Vz-a, Vg(z) Tge je I(x) ma reaseab aunustum to xy, lug x, log(x-a), (x-a) rge je à upaywhanan opy 1200 u pastroporte antédaporte 12014 dustayuje obuse u nouma anuzituse uspusa

apumep: Ucaumour reareby ay warry ourcine charaction arcar. ansociations Orc Wo h=U

vitga je ogramine

z= cusu

unu

unu ogamne

unu

Ogobye je

a ogaine

apema wome je

orc cos $x = \frac{1}{2} \log(x \pm \sqrt{x^2 - 1})$ ne busines ora compania.

Ogume bugumo ga cpytteyya arcus & vincyje yber viiboperty tymany, ta ma 120126a buna tyturno ta tarre x.

Us apegnet Euguno gaje $U = \frac{1}{i} \log (x + \sqrt{x^2 - 1})$ $U = \frac{4}{i} \log (x - \sqrt{x^2 - 1})$

Topution je apousbog bodjy uspasa tog no-Topution shukum paban jegushugu; too ce rouxbou notaputimu pasnuszyjy como y 340124, 30tto je $U = \frac{1}{2} \log(x+\sqrt{x^2-1})$

<u>O cuntyrapuwewuna</u> <u>Chyrryya</u>

3a jegity mariey

y poblitu apomensube à raske ce ga je <u>b</u> Surita auxira rasse apythryuje F(x) axo otta zayobonaba obe yarobe:

1) Ora chyrtreyuja uma camo fegry u to

2) ga, ano ce à obpite un marire a vigrobapajy ha ayaanna opymensuje ogge saaluperta.

those unamo sa opymerzujy $f(x) = e^x$

unu

J(2) = 2m

Tge je m yeu opuj, charca marira y pabitu x jeune oduzita marira.

Charea mariea y pabitu a renja ite go utygo unu nopy and oderoodoper oba gla yeroba Hasuba ce custigrapha <u>mariba</u> unu <u>custyriapunteni</u> opynityu pogu Custyriapunteniu ca reguma ce reje f(z) Wares H. up. 30 opymeryny $f(x) = \frac{1}{1 - x}$

SUSSOI

oute cunityrapunen, jep sa x=a cpynique upyy opuna custyrapunena. ja toutaje decrepajita. Sa opymeryujy 7(2)= sm 7-12

Transvige he tarrier 2=a Sutin custignospu view jep je opystyuja Heugpetjena 3a 7=a. 3a chymususy

log (2-a) u 12-a

marche je

custignapuireir, jep reag ce & vopite viso une marke, ayunama opystrzyuje je ouboperta.

Beh us comus apumepa buzu ce umo 1200 aon aux 12y ga jegita wanza monte Sume custynopita 30 Jugity opyntrujujy us pasituopatua pasi

новрених разпоча. Прета појединостиma izijuma je vita besanta, pasnurzyjy ce custynapite warre apenia chijuj upuin uma toura durie du vou: 1) torbu opynthely uja; 2) reputaturite ta arrive opynthelyt ja u 3) ecentujujumite ūrazine opymneujuja: Mu hemo pegom apehu ocoduste voux

> 1º llonotou Sa jegity marity

Baske le gra le tion opythelyuje F(a) anso sa 2-a opyrneguja aoualaje Secrepajito benunea a megyitaum roesta perjutiporita opegitouti in the accorde paletta Hymu sa z=a and uma 2= a leas odurity marley mares H. ap. opyineyya

J(2)= 2-2

Ray opurypune pasitures x-is by

resign warrate and apoundance wor of to. H. up. 30 chystrenyy

 $\overline{J(x)} = \frac{1}{(x-2)^2} - \frac{1}{x-2}$ $\overline{u}_{0} = \frac{1}{(x-2)^2} - \frac{1}{x-2}$ chy ithey ujy

 $f(x) = \log x$

whole ch $\pm \frac{11}{2}$, $\pm \frac{311}{2}$, $\pm \frac{511}{2}$, ...

garene uma decrepajito initiro tanuba u Cou cy peanitu sa chymry $f(z) = \frac{1}{1 - e^z}$

wron cy

0, ±2, 12, ±417, ...

garene uma ux бестрајно mitoto, og regius

ujuje je ranza un bap. Thog person jerzitur an ondoperta, anu and ce i copite iterzuniures na x=a posyme ce Hajloumu cheten Ha some chuightime passina z-a og sevje spystruje F(z) zatabapa Yozumo sea ward was apous nasu.

291300 3/1300 3/1300 C/SC .s 30 jeighty marry 2=0 reagle ce ga strong conabum

je ièpuirurita antignapita maricia unu reputitivista custignosputica opymetytije t(z) areo, reary a oringe ma reareby sambope ιτή αμαιανού οισο χ=α , οργητισμήα ραιούξε outoperty aymany y chojoj patitu. Apema wome et succionylya republiante war re fectile 0140 mino 2014 que je opynnetyuja F(x) Mynuauchopmika lagres Hap. 34 chymryngy VX-12 unu sa (x-a) " rge l y vume Huje yes opoj unu sa log(x-a) tarieta x=a duhe iepu. winta marka

Megymun repumuritux maranea mortemo umanti goe opcine:

I Uma warebux repuwwhux waje jegon pearan a outranu umaturaphu zana ga ano ce z jegantigut obbite oico: Ogpehubane avroba sa opynie- zea, ayitanoa je ogrobapajyhe opynneyuje ayura ysaciroaye ono x=a, ayuranda ce пример функцизу

i apertecumo asseriore y mariey a , mino

7= at sear

211. Rosentha pheditori le grons

20= 00+ 60 600C

a salopuita buhe

7, = a+ 8, 6, +311)i

Upenus mome rosemina opeginoum opynnensu

je ouhe

F(20) = VF0 e 2

a zabpuita

7 (21) = 150 6 = 50 Euc

al amino is

eni = -1

sj aw

 $f(x_i) = -\overline{f}(x_0)$

garre ce tiguarosa ne satislapa ana ario ajaimo ga ce a obpite jou jegantiza oro 7=a, 3abpuita begitour 3a 2 duhe 2= 9+ 80 C(00+411)1

apena trome subpuita opegitour opymityuje wone apyroi obpinama byte ?!!

wo fe

I(2)= I(20)

- sabputta bpegitocii toche gpytoi obptiona TWIRD LA CE CO TO ENTITION WITE 3HAVE GO Chymryuja F(x) otucyje sombopeny tytumby: apenia invine opyineujuja 12-a uma inj vov-Suity gra areo ce & odpite jegan tyti view Zea chystreyuja oùucyje oùlopesty uyuuniy, unu aro ce a obpite goa aya oies in a ce azitana satibapa

yorumo cay oananju chyraj: to

champajno opymeynyy 手(な)=(なーの)事

Tye cy p u gr goa yena spoja, anu p Huje generos ca q. Upenecianno aoreinare y marity a mij anabumo

u ayuaumo que ce à obpite is ayua oien aurille a llorenter sperjeticin on a Suhe 70= Q+ 80 6 POL

a subputta

The solutions are the solution of the same that the solution of the solution

a sappaira $f(x_1) = 80 \frac{d}{d} = \frac{d}{d} = \frac{d}{d} = \frac{d}{d}$

(12=1,2,3,... y-1

mobas

<u>र्गाशपुर</u>

che maille Houseard genter paper federation the satebolin Hasings or berdow marspe aute-

yeu opoj, muio thye chyraj sa toptoe opegitanti niarise pabat je umenunteny opoja ieujum tha tipontub ano je ju umentetetovan uspas x-a y opystizuju iei

Her availage yet opy; the garrie $e^{\frac{2\pi p \pi i}{q}}$ availage fegurius as y avin crysajy $F(x_i) = F(x_0)$

-avremita a sabpaita lopegitoan opyrtistage avienancy ce a tryanciba opyrtistagi te sataloperta. Us tavia ce longu que opyrtistagia $f(x) = (x-a)^{\frac{a}{4}}$

uma uzy ocoówsty gra areo ce z ospite aj uyuna orevo transfer 2=10 tryatarola ce opyrneguje 30tiloupa, a use je opoj ospitiana manen og og Tytalanda vataje valoperta. Obarebe tarne Those umajy my ocodusty go je mymanoa opyste yuje sauboperta unu outoperta apema opojy ospinanoa rege je yrununa marrea z oreo zea Hasubayy ce artédapare reputurire transce 30 my chystrenjujy. Topoj reogu troreasyje reonumer impedia ospina oses a tra grace trytanta Sapare reputativité talarire les unio ce us Topher upumepa bugu peg warbe jegite u autentibian uspas 2-a y opystreguju 100. y wochambano.

Tipumegóa: Jasik Epegitociau $F(x_0)$, $F(x_1)$, $F(x_2)$, $F(x_{n-1})$ ita ieoje ce itaunasu apu aom ysaciavatiom oбpaiamy atarise x ono a itucy tumina apyro yo pasite genepmustaty chystrzycje F(x). Tianzo H. tip. 30 chystrzycje F(x). Tianzo H. tip. 30 chystrzycjy F(x). Tianzo H. tip. 30 chystrzycjy $F(x_0) = Vx - \alpha$, $F(x_0) = Vx - \alpha$ a tao cy izao unio strano abe og pegóe izoje

yuyy $f(x) = (x - \alpha)^{\lambda}$

Type je i ma karkalo upaujuohanan opoj. Tipe tiepmuhanjuje oparktiopuma: ezint etin HECUMO TORETTAR y a til attaliano

 $x=\alpha+ge^{\alpha t}$ $t=\alpha+ge^{\alpha t}$ abrectiva. Turenta Epegitoca dune 20=0+660°F

a subpuita 7,= 0+ 9, e(6,+2KT) L

je Suhe J(20) = 8 640°F

a zaloputta

F(x1) = 80 Exert Exertic

Comis je i upayusharan opoj, ūpousbog

Ri 14 moihe Hurzaga Sumu yes opyj, ūa itu lipema vione as evita bpegitocii opyntiernini 14 moihe Sumu pabito jegustuyu lio yuje Suhe

Mothe unatura ara opytherija. 3 Harri ga ce salopinta lopegitoca + (I) the II. Uma waranza z=a nzoje cy wanzmonte tunzanja apienoawa ca wzertom be go ma ronuro ce tigua obpataro x oro lopeghoushy $f(x_0)$ to ma ronuro ce tigua τανείδε α τητανωά το εργηθημίζε F(z) ημηθανεύ σδρηγρω z στου α. Us υδύτα το y υτατανώμ He sambapa yorum ison apumen opymer bugu u un que ce pasite ogpegée u genep munayuje opymelyuje (x-a) godinjany yзишьтим муженем првобить де-Yorano reas spyru apunep opying

are usbriumo emerty 2= atgeoi

chymeryuja vouvaie $\pm(x) = \log g + 0i$

Hour Suhe

20 = 10 + 60 600g

a 3abpulta

F(20) = log 80 + 000

a sabpuita

paste genephanaguje opystrzuje log (z-a izao apouslog izopenua zunuouja u

ocodutty que ma revnuser ce trytte à obje que og transbut respetut runuoya He tipo yegestüste repumurite marke. 3a caeigu- yeu opuj, ortga maj runung amarken work was y opymeryju F(x) opuzypune Husy neisboi usnoneusya geopunucahe rotapuliam vite ce masubajy notaplimam peg manso maherte antebapare repultivente cre réputiurite marire.

Us obota mão aperixogu nasso je usbeaux yayanba izanzo apeda paguna antedapaze izpunuzite aarize mory ce jaαρα αρακενού ιεριπανείταχ πανεανεα εργημι ενίπα τευς περίσεις $\sqrt[4]{x^3-3x+2}$

I lipu imparterny aniedapcieux repuisiver un repuis propu ce monte traducation y adrusey

Tursarea inpeda yozutu rog opynryyye og 2 otte uspase y revjuma ce rearba F(xi) = log 90 + (Q+2RII) i = F(xo) + 2RII i isomownaujuja og x itanasu tog reope Ma Restrució opegitour dura is iturag ce itum starom ogitocito ca pasicombetium subpulta begitocià ite monte tronsnotamen ca us rostrution em, tipegettabilità transly TUZETAHUM. Ocium closta buga ce ga ce resmolinazión trop respensam shareom Goodijajų ikiais ce jegity og rour goga unu vitga bugemu ita izarzbom ce unenterty ogysme 21/1, 41/1, 61/1, ... Obasele marke reve umany my ona, areo maj interest orge yes opoj on Hyno vieu a ayaranoa ce opyitizyaje F(a) usnase iturearebe antedapore reputatite Hurrary He sambapa Hasubajy ce inparte marke; Ha apomulo areo insnortany truje janah cryzaj waz ce vita jabna ycheg pabah itynu gahe aareby waziey a; ume traverse. If up. Here is a gama chymery upa $\overline{f}(x) = 1 - \frac{\sqrt[3]{x^2 - 3x + 2}}{5x - 2}$

1=0 u 12-5=0

apour respertu rusturais giaje artedapary tinj umamo tipu tipancisegentista cuntyreputitively touries 2=1 il to topehet pega, raputitetter il to grytu Ropettu ruthunay gaje tuanobe an Tedaporey reputative try auxièr x=2 apéhet Une Herra je ganta opythèrquia pega.

II. Шрансизеденный перишигне шагле ст. шрансизеденийни синтупаришений добиtraje en he apous nase virga anto reasab jajy ce permenem jugnaruste uspers apuriphine as rearebon anienerous пори је прационакам број или отуда што и прета тоте има доа синтупаритета Rassab uspas chutypune ing notapunan.

Crum 3 Harsom. Guru ga je jegan uru

apytu crysaj, apu inparkeny auniyrapu

1° gemaba ce y ingarun arefetta begitom à buill impartagegeniente impartagegeniente repuisive marke lie ou custignapulien. H. up. Herea je gania loa areo je ouepanjuja noi apunima uog-

chymeryaja $F(x) = \frac{x^{\lambda} - 3 \sin x}{(x^{2} - 5)^{\mu} + 1}$ Chymeryaja nge cy i u ju glow upraizuw Hanta opoja tipe ma vioine impargente curtigrapuraevir go- Hema Hurrarellux notapuriamereux repuriur dujujy ce pemensem jegnaruna huritarana.

. X=0 X=V5 X=-V5

 $f(x) = \sqrt{x - 3\log(x^2 - 3x + 2)}$

wewa wpeda walowa ya je paban ty zywathum czysajebuma, bpno usysewtum, ru marrial uspas, penningu mares goon go u ares jegan uspas opunypune nog ferty feightarung to x', the the waves good whaputuancieum sharrom utions of the gage Copityma apyroj odepazuju tuanzo 11. ap. F(z) = 2-2e4log(z2-32+2)

13 pourus Hux marara youry 1804y upa no gra bu un goriaranu ozharumu ca iz u Tapulian utpajy orebugito a opyrticulie a nopy a aptymenate opoja A ta he weckin, are wis, wrecty a are why down some ce a vite choyé tha nuitapunime.

3° ECCHYMICONAL MORKE 3a wariey

range ce ga je <u>ecentrajanta warta opythe</u> tye je ie ma ranab yeo opoj. Ogamne je Using f(z), onto u f(z) u werta persuaposita $\chi = \frac{1}{\log z + (a + 2RT)} = \frac{\log z - (a + 2RT)}{(\log z)^2 + (a + 2RT)^2}$ bpegnour fai avanajy neogrépèrem y onu- are ce ca à u y orthané peanitu u umasustre marière rea Mario 11 ap 12 aske ce ga Tritapitu geo tra mario que je je opytheujuja = wowiyto teogpehesta y Drusustu marire 7-0, mario u como u mestra us ascaregho fegriarense usarasu pergutipositia Epergitica. Qua ou tro gostasani mu hemo gorasano ga oba chymryuja F(2) 30 2 Gpm Snucres Hyru Motte uniam Rankly as hem open town it, apyrum pe-Euma gorasahemi ga je yber motyke Hahu lopegitoin & lopio drucky Hynn 30 12014 he Sumu

2° lipu inparkency inparayegentality as me rearrey opegitous game opegy. 7= 5 6 gc Bameston y 1) godyjamo 6= 6 6 gr ogaire notapummucamen = log 2 + ai + 2 RTI

x= (log 2)2 + (d+ 2xII)2 $y = \frac{-(a+2RII)}{(\log z)^2 + (a+2RII)^2}$

Ma Rareal dus yes opij it tosuauban unu Heramubun begincia 2) gajy man pean-Hu u umaturapitu geo chujy opegitocimi 1) 2 30 120/2 je sagobowerta jegnazurta 1). Mehymum y tuum uspasuma uma jegan tipo-yujarita taarira tepema tavine sa opyineusboron opoj R. ano tyctiumo ga R decrepajito paine buro y assumubition unu HETCHTUROHOM apalogy, or u y trespe mynu ecestywjanska tawara je are opojy is gramo itus opno benurux lopegitocità 12, 12, 12, ..., x i y pasnure bahea sa opyrtreguje ce lopro maro og type u gabarrem pas-Hux bono benureux opegitocian opojy iz Suna ou ecertyujajita mazira umahémo u pasite aapoloè lopegitoani xuy lopris brucise ityru. Clou tim trapilou sargo- jep ce che vite uspastialiajy tromohy Euler boloabajy jegitarusty 1) muio staru ga obot ospacya opystiruje ez U y oumie jugitarenta 1) uma decircharito inituro pe- 3a ma irojų pystiryvy odnusia were to a report of opin ourses there. If the cas to the taster of the caster that the caster apytum peruma opymeyuja

30 decremento mentro mararea y demonera marke sa obarebe remontanje. Mareo u tivrentika gobija upousbunito ysenj opeg- um orebugito je ga he ma karebe ante-Hour of muio stierm qui je otta oguatia Sapare resindustanjuje obux opystrenjuja u-Heogrefierta y orusustu tiorettika. Vre- matin the unite thanke that ecentylijarik. bugito ga tuo ucto baseu u sa penjuapor- Mario H. ap. Thy bregition me chympyuje

unto ottaru gra je 3192 2=0 vgucutra ecent- marioresa u tão he dutir oa

yujy $f(x) = e^{\frac{1}{x-\alpha}}$

Evenir de la sur du le centrajante de la ecentrajante de la contra del la contra de la contra de la contra de la contra de la contra del la

umahe бестрајно много есенцијапних

 $\chi = \frac{(2R+1)\overline{11}}{2(2}$

nge je a ma karab yeo opoj.

Upuneyse:

Tope womenyum.

1º Ecentificianne marke Hemoty de CECROHORHO YGONEHE MURRE Hurray jabuta isog antedospersus chynn yuja Obe mory umantu camo oburtus. tauranea, tronoba u antedapcieux reputur Hux maranea apema mome ecentralijanske dog secrepajsto gganestom mars trarise cy nemano besasto sa tapancisegentrom y pabitu a pasymenemo trarity rog

Rao cutiy rapuneun.

Hour opyrreguja. 3a ecerujujanite triarke koje mogyo g oeciepajito parate aptyme-3140 ce og pagoba Meierstrass-a. Han maribe marke monte bunu ma kando. 2º Ocum apègneux curtynapurae il marbe marke mory dum unu oburne una uma ux u resmitaux obanyux, anu regunu autyrapite. Tuitame o tiome revièbe chystreguja as rejuma hemo umauni tocha he beaute Sunt transa y decrepajstocum He jabbajy ce apytu curiynapumeum ocumpenialoa ce obares: mpeda y gamoj opyrneyuju 1(2) cmenumu

> Time je ozebugito becizpajito yganoeita tiaz lea upertecerta y avremare i apema inome Caroa 30 Hobo goodyesty opymeryny q(x) ucinimain revie he opcine dum marien to mão suba apema parrijum gayantu

Примери.

1. 3a chymenjuyy F(2) = +

x=∞. Juhe oburità marira, jepano ce con Bracuchurayuja chyrryya bu 1= = country uja avairaje t.

2. Sa chysticizujy

warena x= ∞ duhe war n-wor pega, jep 3a 3a jegity ce opyitteyajy traske ga X= 2 chystreyuja wowaje, cp(t) = Im

3. 3a chyntzyujy = 12 - 1

Roja tocitaje

q(t)=11-t

viarea x=1 jeuie antedapara repuirumentarea H. up. opyitiryya marka.

4. 3a chymneyuje ez mz, wsz, tyz, whyz marien 2=0 outre ecenylyanita marien.

apema apupogu cuntyraputietua

LE SCOROMOPOPHE SE ESPEGITOCITE & y one Bustu jegsté marire 7=a, carro je marira a obuzita waziea opyntrujuje opyntrujuin he dutie surum opopita y jugitoj voriacome possitu & ares je vita sonomopopita y drusustu Chujy wazara we odraww.

t(2) = 7-1 whe survinopophia y course other odricum pabitu & ièvya ite volpabianta (ite vaituroaba) warry x=1

3à jegity opymeyajy revja du du na surumopopita sà che isomarite marire g palitu à Raske ce gra je uzena opyineus ja upomensouse a Mariab je cryzaj ca

ma rearroum abruhomom ao x unu ca chyropystregujy gra je <u>myntauchopmita</u> y jegusujama: et, mr. z., cos z. u ti. g. O zebugito itvj gratioj o stracutu y zenoj pabitu z. aje gra areo umamo bume yenux opyrtrejou eo orta y mareboj obración uma repumberja, orga he u ma reareab soup, pasnure rux aurearea. uni apousbog aux opystryuja sauti I apumepu: warohe yens opymerzija, wino warbe 1. Spymerzije ouepaisuje He ybraze Huzarebe curity raputietie. are opymentique uma curity cy mepomopopite opythensuje sep thutu uma the fegite reputativité travère, origin outure mepomopopité opyrtrajuje moi uma ce sa voy reastre gra je <u>y Huchopinita</u> obymita reas curigrapunieni camo torobe. yuja y taoj obnatati titareo H. ap. chystre. Yuja $\overline{f}(x) = \frac{1}{x-1}$

ty z u coty z

raputietta y jugitoj obracta pabitu z majy isputivitus tarania itutu ecenand mely win custigrapuneuma He- gujantin waraka y weroj palitur. Y

2. OPYTHELYLYE

12-1 u log(2-1) wil mix

auxitux auxanea.

duria du yourchopmita sa ma rarrey out- dure du myritachopmite jep umajy repumani y pabitu 2.

3a fegity opyitheraujy itoja je y-Huchopinita y wenoj palitu a apu wom Hema Hureareab ecertificiarity curitypiapuntent y muj palottu Raske ce ga je Mepomopophia opyinayin apomensuja Ha wornewitzy transe ce 30 jegyny

Usbogu chyhryyjamio salouce og unaturaphux Boruzura

I valuaire any usboyom jegite opyitizyuje I(x) uma ce pasymenti ikonur-Hurs usin'ely decispajito manot apapamina yelyanam asumo je ja opythrujíř u vytobapajyhet seciepajito marot apapaminaja Herabuch apomen roube.

are yorumo paban apomensulo I u y novi goe metycosito decrepajito sinul re marie 2, u 22, inum he goema war-Rama y pablin Suja ce ogtobapame! gue metycudito y vamme decrepai HU Shucke aux-

re Fail a Fail. Row decrepajito manu apa-

parities za uma ce cinculiparte pastura 72-71 = Oh

a reas ogiobapajyhu beczpajito manu apapaniaj opijitisionije uma ce cinampaune

 $f(x_2) - f(x_1) = df(x)$

Прета дефиницији извода преба да Syige

 $\overline{f}(r) = \frac{\overline{f(r_2)} - \overline{f(r_1)}}{r_2 - r_1} = \frac{cdf(r_2)}{cdr}$

7=x+yi J(x)=9+ QL

a troute Pu & sabuce upg x u vý y, Suhe

 $df(x) = \frac{\partial g}{\partial x} dx + \frac{\partial g}{\partial y} dy + i \frac{\partial g}{\partial x} dx + i \frac{\partial g}{\partial y} dy$

3 amerion voux opergitocuri y obpacyy 1) go

 $J'(x) = \frac{27}{5x}dx + \frac{59}{5y}dy + i \frac{20}{5x}dx + i \frac{20}{5y}dy$ dx + i dy

unu geodom opojuvya u umenuvya ca da 1 (2) = 1 1 1 1 E 1 1 E 1 1 E 1 2 E

The je repositione page citabretto ga je

 $A = \frac{\partial Q}{\partial x} + i \frac{\partial Q}{\partial x}$ $A = \frac{\partial Q}{\partial y} + i \frac{\partial Q}{\partial y}$ $B = \frac{\partial Q}{\partial y} + i \frac{\partial Q}{\partial y}$

Rag je gama jegiha opywizyuja F(z)Pu G cy taatigiho ogpeherte opymizyuje og x u y taa tipema taome he taa utaa outu u us uspasuma A u B tipema taome u tipema odpacyy z) usbog F'(z) ouhe jegina taatigiho ogpeherta opymizyuja og x, y u z

υρειπουπασυμο σα σε πρακι υπο ορος η μεζητή σαποί γπορη ετιοί πανειν το υπο το ματική του που ορος τ'(π) πουπαίε τα την πανεινή μεζητα ος βελειτα ερμιτελημία σαπο παραπείπερα ιε Μελμπιμη υδος με παραπείπαρ σπο το πανειν που προπασι μεζητε τια πανεινε εκριώνε το που προπασι τερισ το διωσει πανειν πανειν ποι που προπασι τερισ το κιτοπο τια πανειν ποι ποι προπασι το κατικό το μανειν περεπο δεσεραίτο πιτο το ρασιτυργοτιακ πημισκά, εδαπεί ος το πανεινο το μανεινο ποι προπασί ος το πανεινο το ρασιτυργοτιακ πημισκά, εδαπείς ος το πανεινο το ρασιτυργοτιακ πουποίος το πανεινο το ρασιτυργοτιακ πανεινο το π

Tytama ogtobapake to jegita gupira y i u apema vivine au jegita opegitua 3) appamentipa R Maj appamentap garine. a apenia aome u bpeghoca wologa I(z) y marku 2 sabuce garre og aymarbe region ce apenasu og the traverse tha muj. Secrepajito druciej wariej u upema wome Tomin aux ayaana uma decepajito mitoro a gensbogito bositoportax asive. gam ou kao go je bpeghou usboga Ta y woj war ieu x avwayto Heogpeheita u gia una Heogrefietturi godrasu bary og TOMENYTHE pasitopenoun Tymano Tipe ma trome du ustregióno rao ga tojamus louga, Roju je avaraysto vapetjen Rag ce uma toura ca peaultum Ronwinhamia, to cuivaje Heoghebet Brag ce uma tochia ca umaiumaphum revrurumana. Megyiium wa je Hwypehertowi camo apubugita u mu hemo gorasamu ga sa decrepajan opy opymerycya u ow obu other ca reviu ma ce y paryhuma u apunenama uma Two na, trapamentap 12 He youre Ha apo-

merte opergito cuita us passor 2), Toperg cheta mora wino y won usposy oputypuine. Ga Su tu goversanu ospasyjno uslog uspa-30 2) as aabameabl is a assastano cha fe wares godujestu usbog paban tynu sa ma Ranby bpeginai it that usbog uma sa bpeg. How $\frac{(1+12i)B - (1+12b)i}{(1+12i)^2} = \frac{B-4i}{(1+12i)^2}$

thomparkumo karebu ou mpedaru ga cy tu À va que vaj uspas byge paban Hynu sa che vaner ya je Espergiticame is the he burn or eburgito isang je

unu aperus obpacifuma 3) $\frac{\partial 9}{\partial u} + i \frac{\partial 0}{\partial u} = \frac{\partial 9}{\partial x} i + \frac{\partial 0}{\partial x}$

ONE Gjegitarumo sacedito peanite u uma-Tutapite genobe y oboj jegnarum, gobujamo

$$\frac{\partial y}{\partial x} = -\frac{\partial x}{\partial x}$$

Bag Tog cy sa jegity chynkyujy F(x) ucay-Wester yerolou 4), usbog F(x) Hehe 3 abucunte og R. Mehyraum rares ce ybepabamo ga cy yerobu 41 sayobonettu sa che invigne opyrire-

yuje as Rojuma ce y parytuma uma to. crea. H. up.

1. Herea je gratina chippersuja $\overline{f}(x) = e^x$

Tomas je ex = extyi = ex exi = ex (wsy+i siny)

in je

P=exwsy a= et my

 $\frac{\partial x}{\partial t} = e^{\alpha} \cos q$ $\frac{\partial 9}{\partial y} = -e^{\alpha} m y$ $\frac{\partial u}{\partial x} = e^x my$ $\frac{\partial u}{\partial y} = e^{x} \cos y$

4) Yawpehersen voux lopegitour longu ce ga cy yenvou 4) sagvoonertu.

2. Herea je gama opyrnewya

Tomas je $x_3 = (x + yi)_3 = x_3 + 3x^2yi - 3xy^3 - y^3i$

ão je

P= x3-3xy2 Q= 3x2y-y3

ta vityga

$$\frac{\partial \mathcal{P}}{\partial x} = 3x^2 - 3y^2$$

$$\frac{\partial \mathcal{P}}{\partial y} = -6xy$$

$$\frac{\partial \mathcal{Q}}{\partial x} = 6xy$$

$$\frac{\partial \mathcal{Q}}{\partial x} = 6xy$$

They be charen ourmen. In a y ourme umajy wareab cacinab ga cy fegharuste 4) yber zagoboneste. Hefytaum usysetaarea u-THE COMO TENG HAPORITAD CHROTHERUX OPYTHE yuja anu ca ievjuma ce Hema ūvena y v-Switton paryny. Che chynryuje za Ruje je your 4) zayolonet Hasubajy co ananuwith opymuly ; one, so roje we yearde Hucy sagoboneith soby ce Heathanumurite Opytherycje. apema obome unio je rasasto ciamo reog assanuauritus opystreguja monte Suite peri o usboguma, jep nouxobe usboque le 30buce og tigutome revjor ce uge og

marise i go raj benspajito brunse marise. Us chetia vovia bugu ce u tro ga sa jegity ananumurity opythrywyy Tull umajy thaportura cacatalo, 140 obphytas ma ranco apousbornito Pula Hemopajy apeguansnatur pearte a unaturapita geo Rarebe opyrthetyuje. Mina bune Hema conciena Hu o-Carrolo sagamare: Ray je gamo jegito usbecito apousborito o ospergina pyrticul. jy rega ou warelot umana ieas choj pean-Hu geo. Ita aplou max apema jegitaruntama 4) ustregano ou ga je sagamar Hemotyhat Camo uspasie Ca usbectum Haporuthum cachiabom mory but pearth geo Rest be opytheryaje. The ce mother youngent the obay . Hazun: Us jeghazunta 4) godujamo gucheperhyujunewem

 $\frac{\partial A_s}{\partial s \partial s} = -\frac{\partial x \partial A}{\partial s \partial s}$ $\frac{\partial x_s}{\partial s \partial s} = \frac{\partial x \partial A}{\partial s \partial s}$

ins reta ce apolitia teatharmta.

6)

Us tavia ce bugu que camo vitu uspasu I mo las reta ce godinja vieta Natinaciba jegry y outwire out peruntu geo opymanije ier parinta ju bygy sagobonum tapyujanity fignaru-Ity apytot pega 6). Megyttum orebugito je ga Us titota ce bugu ga camo ottu uspasu yay vay jeghazinty He monte sagubonium ma rear mory y oriume apeigentabroaum umarutap. 609 beh camo uspasu qua Haporutum cacination. Mareo H. up. uspas x2+y2 He mother Sum I Hu 30 Randby opyrthelycyjy F(x) jep je $\frac{\partial x_{3}}{\partial x_{4}} = x$ $\frac{\partial A_{3}}{\partial x_{4}} = x$

Ha tipotitulo uspas x2-y2 monte butin Pjegne mento Pula Osphytim sagatuar buo bu oopyrnersuje tepte 329

u jugharusta je 6) apema aome Barguborbesta, Riav u Hoesto Q.

Mapyujantom jegharutom u apema aome ca reve che umajy choje vypebette ustovye araj mo bith uspasu of (xy) reogn bygy try jegita- ce usbog Harasu Ha utim Harut read u reog TUHY BAGULOBALANU MUTY SUITU PEUNITU CPYHARYUJA CA PEUNITUM TYPOMENDULUM geo réarèle opyrnemuje.

umatunaphu geo a jep us jeghazusta 4) go- ste u obge. Sujano

Hu geo jeg ite chystreyuje ievju bygy sagoboroabanu fairacoby jegharuty.

Panye je tokasano kano ce sa jugity ogpeberty opyrnayujy F(x) Hanasu Caj: reag je giamo o 30 jegity Heurs Harry spyttrujų F(2), ogpegumu my cpyrtrujų

Tegitazusta 6) ce zube fatinacobom Roy amanutiwa, x opystrzyuja , Ronwentama Cha apabuna noja emo wa-Cruzan ce uspas goduja u sa Ino umaru sa usparynabano usboga ba

Utuetpani chytryja wuo zabuce og unatutaptux ronuruta.

Thompaskumo ape cheta ga nu uma cmucha uspas $J = \int_{-\infty}^{\infty} f(z) dz$

nge cy 2, 4 22 gle yaiopherse opegitour apomensable 2 abilità se

x=x+yi

in je

dr=dx+idy

of armino je

F(x) = P+ Qi

Tge Pula sabuce u og xuogy, tio je J= 12 (P+Qi)(dx+idy) = J+iJ2

Tope je

 $J_1 = \int_{0}^{x_2} (Pdx - Qdy)$ $J_2 = \int_{0}^{x_2} (Pdy + Qdx)$

Charry og unitetpana I, u I, sabucu og gbe ustrietpary with apomen wibe dx u dy u apema it ome areo cy gaine camo tpashuye I, u I, u Humana bum arrou mucha tompedito je ga aog us aparyuostum stration octiaste camo jeg unite yrunumu camo inomen buba unito a monte yrunumu camo inoseo areo x u y bygy besartu jugtom y ilophetom penaryyom tap

Law wy penayyy sharu go wywany wo reojoj ce apomentuba & apu unwerpayu; ju uma repemawu og warre 2, go warre 2,

Bogehu parytta o woj wywonou uspas wog unwetpantum stratent o wiege chyticizuta camo jegte wpomen bube wares ga unwetpanu I, u Iz waga umani chucho wa w

C C T2

umayy emucha tra apema trome u cam un terpan traga tra-

suba repubblicamination intractipation opythe Haw, ortga ce samenom nousubux opergy uje F(x) y sett gysk tigtiance C. Thema to- Hotal y uspasy sa I usparyhaba u cam те израгунавање зедних приволинијског тај приволинијски иншеграп J. Mu heustricipana

J=J F(x) dh

сущь редне дате тутаже С са изтеру жених три спугаја: Thanwitux marana 7, 4 2 brunce Ha obaj Hazust upe cheta impeda umaian jegnarii-Hy aymance 180gia moite Sume gama y pas-Hum odniujuma Hap. y apaboyinum koop- y apaboyinum koopgunatiama xuyu quitationia xuy unu y tionaphum Roop: Iterea je metra jegharusta gustatiama g u o unu y tapametaparon odnusy u tig.; aomohy takse tegnarante tomohy the tegnarante a signarante inpeda opopinupania uspase

Pax - ady Toly + a dx

180 pr he waga avaitame opyrreguje camo Then guckepennyajan. Waya he ce avy unjegne apomentable nap camo og x uni camo metpiantum znarom y unmetpanuma 1, u og o unu camo og jegiter aapametapa tu 12 avjabutu camo jegita itavstratia: x, mg; samenom y unitetparuma J, u J2 vou taares que ce goodija crysaj vournux unite-

mo apena vione y nom je odruny gavia jeg-Harusta ayanawe C pasnusebana da

1º Cryraj: Herea je jegharusta tymarbe e gama

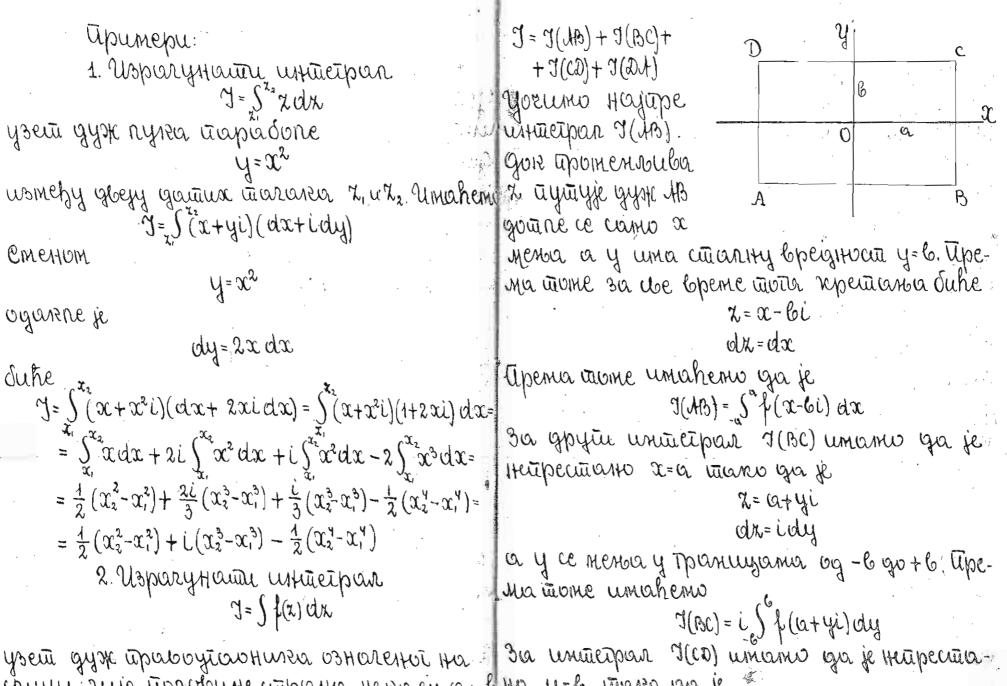
 $\frac{\partial x}{\partial \varphi} dx + \frac{\partial y}{\partial \varphi} dy = 0$

Mothe ce y unitetparama J, i J2 wodayuma Jegita Ruja ce xuhe apomendula Hap y a auchajy oburtu intretpanu troju ce umajų para ca jegtiom unitetparjuotiom apomen. usparijiami ao apabunuma sa oburte og- subom a. Ray cy otu usparijiami umapetiette untucipare, a rag cy un uspary- hemo u cam gauta untucipar I.

Йримери: 1. UsparyHann whiteipan 7=5 2 2 dx ysem gyok nyvea aapadone usmely glery gamus maranea x, ux, Umahem x uyuyi gyr AB $J = \int (x + yi)(dx + idy)$ CM CHUM A= xx oganne je dy = 2x dxSuke .x.

 $J = \int_{-\infty}^{\infty} (x + x^2 i)(dx + 2x i) dx = \int_{-\infty}^{\infty} (x + x^2 i)(1 + 2x i) dx = 0$ $= \int_{-\infty}^{\infty} x \, dx + 3i \int_{-\infty}^{\infty} x_5 \, dx + i \int_{-\infty}^{\infty} x_5 \, dx - 3 \int_{-\infty}^{\infty} x_5 \, dx =$ $= \frac{1}{2} (x_{2}^{2} - x_{1}^{2}) + \frac{2L}{3} (x_{3}^{3} - x_{1}^{3}) + \frac{L}{3} (x_{2}^{3} - x_{1}^{3}) - \frac{1}{2} (x_{2}^{4} - x_{1}^{4}) =$ $= \frac{1}{2} (x_3^2 - x_1^3) + i(x_3^2 - x_1^3) - \frac{1}{2} (x_4^2 - x_1^4)$ 2. UsparyHamu ustrietpar 7= \ (2) dr

chunga ruje tronobuste atipasta sterera cy aut to y=6 transo gra je Orebugito je ga je



7= x+6i

olz=olx

or x ce mercia vig +a go -a tipema tivome duhe $J(co) = \int_{a}^{b} f(x + 6i) dx$

Ha tochewity za unitetpan I(DH) umamo ga je Hutperturno x=-a turner gra je:

x=-a+4i

dr=idy

u y ce menora y tpanuyama vy +6 go-6, wa-120 gra je

7(D4)= i S f(-a+yi) dy

Charen og oba "reutupu unutetpana yn ruju je twryapequatables to jugar obusian unitetipan cal aperture of area to jugition unitetipayuotion apomentouloun u luspoisumo y twoopread our gad repartherm mayeur of them reoblanging com gound ustrietpan J.

2º Cryzay.

Hereo je jegnarusta ūymanoe gama y two with the property with the property of t Q(8,0)=0

are y writietpany

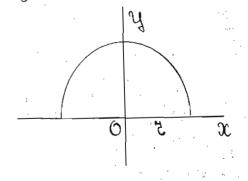
игразими и томору в по п метор диферен шалго да се добија

yujan armohy de u do , orga armohy clay The jegharusta momeno yrunutu già y ustrietpary I oputypune duris camo g, Sans camo o mares ga tremo oteti unami jugast voluziast unitietipas.

Upumepu:

1. Iliparku ce univerpar 7= 522 de

Asem Mik mounishing. na ozhazehot ita cau Suhe



oganene je

dr=geoido+eoids Touris agains uma obgu 30 fegtarunty 6= courst = 5

si at

dr=zie de

Banestoin y uniterpary vous troutage: J= 5" 72 6 201 21 601 90 = 231 2 6 301 90 = $= \left[e^{3} \left(\frac{e^{300}}{3i} \right) \right]^{1} = \frac{e^{3}}{3} \left(e^{300} - 1 \right) = -\frac{2}{3} e^{3}$

2. UsparyHami umi unitetpar

want the country tropy.

Umanu du vaico-

3 unu - 1 u 1.

3. UsparyHanni want univerpar asno ysem gygk voarboi commiscosi costo softwass je ma iningu.

> Octivaje che ucitivo resso y apumepy 1. como y abom anyrajy 8 bapupa og ogarne je

0 go 11.

4 UsparyHana una unatipan gyn

repyta ozharenot Ha chuyu ruju je yestiap wariea ta a arryaperhux z. arrice mable Z=a+geal

and governments and some is dr=geoido + eoids пречника г. зедногина аупамезе

g = const = 2

nytito unio maso samestom y uniterpany godinace uniteupe camo ce mensajy pour as camo jegitom unitetpayuoitom Transme Ruje cy caga apoinensulom o a transme univerpanation carajy ou 211.

> 3º Cryzaj Herea je jegnarusta ayunanoe grawa y trapametraparon odruney $x = \varphi(t)$

.y= \(\frac{t}{t}\)

 $dx = \varphi'(t) dt$ dy= 4'(t) dt ware gaje dr = | q'(t) + i y'(t)] dt

Samerom y univerpany obaj waraje oduvar untrecipar ca univerparifuortom apo-MEHPOROMIT, HOJU JE NONE USPORYHOUTH. Hap uspazyyana witherpan

gyth enuice ruje cy apryvice a ub Trapa- Rasarto je ga bpeghoca jeght repu Memapore jegharinte ennice cy

4=6 mt

Tge & Capupa o go 21. Ogaine je , dx = - a mt dt dy = lo cost dt

au je

dr= (-a mt + bi cust) dt u samertom y ustacipany godujamo jegan Tpanjuju repehe warra z usmeby worasoduzian unacipan a apomernilon to 11 He a subpunte marire. reviu apela yseum y Tpanuyama o go 27

Cauchy-cloa meoperna o erbubarenyyu ūyūana.

bonushyczoi ustwieipana zabucu og oba upu enemertaa:

1. og odnærea opytheyuje f(x) revpa ce un-

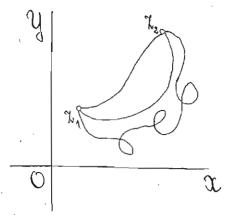
metpany;

2. og whitetpantux tpanuya tij og tionaste u sabpuite trasise & apu troj ustre-Tronguju ju

13. Og aytanne gygk nige ce apu tagi unite

Couchy je gorasao ga je sa arta numerité chystriqué le pegitour univerpana y vainine Hesabucha og voot apehet enemestria, any us bechum yonobuma raju - cy aperjusuponni y netuboj aeopemu eama vierpema Tracu vbarro: Herra je gata Rong bu viaj cryraj buo, ustretpar uma ustrieipan

7= \ f(x) dx



Ju Hazun geopopmuca Epeghocia na am vienzo ga He-

12pos to uto u ga tipu tivý geopopinaryuju HURARO HE apohe repos rarab curigrapu tiem opystrelylyje f(z).

ga du meisperry goreasanu yozu mo jegan intiretpan obarebut obrunza

J= J(Mdx + Pdy)

ysetti usmeby tuaranza 2, u 22 igysk jeigite Tymanoe e u tipetitionitabumo gia cy uspasu Mul Tapyrijantu uslogu jujite uaie chytherage of (x,y) make you be

31a CopeyHocin

 $J_{\alpha} = \int \left(\frac{\partial x}{\partial \varphi} dx + \frac{\partial y}{\partial \varphi} dy \right) = \int d\varphi = \left[\varphi(x, y) \right]_{x}^{x}$ ysett gygt jegtte tytalance C usmeby 12paj- ysette ubaj unitetpan y tpanuyama i, u House Transmya to uta, to siture or ebugito chemune y werry begitour uniterpana stajupe x u y sabpuroum Tranusama x2 Hehe ce 144 y 120 ruses à y2, the 3 athum comestitue ux tion estatum изменити каз се ту- траницама хиу, и регулитите одучени. wand dyge ita ma iew apema wome wareab ustweetpan uma sa

 $J = \varphi(x_2, y_2) - \varphi(x_1, y_1)$

apecialisto aponasu Ras mão ce bugu unitarapan sabucu caino og avzemite u sabpuite bpegitocalu xa a ya a Hurranzo He a vig obranza ayaranse ROJOH ce apenasu og warre x, 140 x2. Owygod obo aperixogito apaburo: Rag rog cy y jegitom republikujujurom untaretipiany > 7= 1 (Mdx + Mdy)

> I M u M tapyujantu usbogu jegite ucine chytherryie c(x,y), bpegitocia mareboi unine-Thank 3 abucu camo og tweeting u 3 abpen-He openitocuin x-a u y-a, a Hureareo He un ahorne dak isok te do en isbriporminición

ustrietpan.

Menymun ray Hull sayuboraba jy tie yoube, vitu sagubonabajy creya Topne apaburo Juhe apamensulo ita jeg Hazusta

 $M = \frac{\partial A}{\partial \phi}$ $\mathcal{M} = \frac{\partial x}{\partial d}$

us revjux gobujamo

mans 3 Harri da je $\frac{\partial x}{\partial x \partial x}$ $\frac{\partial x}{\partial x} = \frac{\partial x}{\partial x} \frac{\partial x}{\partial x}$

ogazne obo apocialije apabuno: Rag y jegitom untretplany

7=1 (Max+18 by)

opythruje it u M zagoborobajy ychob

Espergitocià untuetparia He sabucu og agricanse ità untuetparia I, u "Iz tra ganène u ita unt Oftenbooder per 32 aminogét

granion ustrictpury

maturaphi geo opystrujuje f(x), umatieno opystrujuje rume je gorassama Caudryya je

7=71+92

Type je

7,= ((Pax - a dy) 7,= 5 (Poly + ada)

ustraetpar I are je vito apumenoulo ita. ustratipane J. u J2. Y ustratipany J, umano gaje

P=M

apema zemy godujamo ycholo

y uniterpany 12 unamo

wares go years 1) wowaje

apaburo he suitu gairre apamenroulo taerpan I reag rog Pu a sagubonabajyychobe 2) u3). Megymum obu ychobu Hucy Humana abligo do otro 30 150h cuo 1500 auno Bugenu and ga areo cy Pull peanin u u- I ga ux saigoboroabajy de amanuturire ela vierpena sa che ananuviurire chymiyuse.

Mesperus apecinaje baskum ca-

mo ottgra and their and their motythe apetul og flythe ayarone the grying bes adopede cuntigraphimenta. Y arenolum congressione ma untartpeas mother coachin us methodic lopergitoria a Cauchy-elsa areopemia apecatoris bancoma. O arome je traj nanzone yberponta ce us accreginga troje hemo usbeam us ube areopeme.

Mocneguye Cauchy-else viewpene.

Us Cauchy-ebe treopene morre ce usbeath benusu spoj tocheguya 120je utpajy bpho baskity ynoty y garramouj treopuju cpystruja. Marebe cy H tip obe:

1º Mocneguya:

Utweetpan

7= Sf(x)dx

γρειπ αμγκικα ικανεθε παιδορεικ ποιτιτήρε πορά y cedu не cagporu Hurranab curtynapuniem chymruje f(x) paban je nyru.

ga du meoperny goreasanu

aperationariablemo que ce apaspar

J= Sf(2) dr

aboda upenavanabnajyhu ga ce upu

apytot repu hemo oznarumu ca I (cda) yse a cyapomno oznarenu moznaru ga je wit gyt agricance cola wares go he sum -7 = 7(abc) + 7(cda)

Upema Couchy-elog aeupemu ayaana abc exbubarestruità je apavonustycieoj ayuanou un garene u cac, Tomito usmely your Hema Hurrarebux custignapunienta, apema remy je 7(abc) = 1(ac)

Maro univoje

7 (cda) = 7 (ca)

u apema wome

7= 7(ac) + 1(ca)

larso ce ybepabano ga unaetpanu I(ac) u mome hemo ce rarso ybepunt wichampa-

ustatetparjuju averica i repetie y apabay mety woom jegnance a cyapoanto oznacente, OBTHOREHUX ROUBUX Jep and yorumo Ha apataj ac jegny apouscurpenusa, orebugito bondy warity 2, y noi he opynkyuja uje ga he uparkern un manu bpeghoci f(x) u 3a jegan u 3a zpyru wetpan outre paban unaerpain. Megyitium apupamaigu La wij 30 upy goa unitetpa de troute cy y cytipotitum tipabyuma Ma: jugitur izoju hemo cytipotitur cy 3Hanra 3a tita yba unitiet-03Hazum J(abc) yse paria, unto rustu ga cy enementar f(2) dr that gypt tyticance abo sa that you untilethana oguctia jughanen 7(ac) = - 7(ca)

7(ac+ 1(ca)=0

zume je vieopema gosasasta.

Osebugno je ga de vos aperariocitabria gia restruypa He obyabanta Hurra-1206 custignapuireir opyrnaguje f(a). Novico ce ybepabiami qui meopema He mopa baskuthe areo uma rearrow curtignapuneura O I (ca) umazy due douje usualpanite enemetica yhu it ap ustuelpan 7= Jak

ysent gyzk ma nanbot repyta roju obyzby tyraputien, unterpon tha tozenian. (n. s. ma nozemar. Ja ou univerpar usparyita- y sen gyze marche rothingpe uma uning nu apeda anabumu

z=Reoi dr=Reolido

u yseuru ra y tpanuyama og o go 27. tuaga ustimet part itocitiaje

garene univerpan ma ga je ysem gysk sam- Hvr ysemor gysk ворене понтуре није раван нупи шакав тупатье авс и je 'y oumie chysaj isag tog kontuypa cagp gpytor gyge ay-Hu custignaputación apenga ce u orga mothe gecumin già ustra espan ofige orient paban qua je Hym. Trabito je tuo que y tuanebum chyraje buma monte a ne mopa butte paban Hynn a Ozebugito je taako. Mehytimum reag Hemia curtifraputitetta, OH he ga je aytimaria тора виши раван нупи.

2º llogreguya

7= / f(2) dr

bpegition isav u unitetpar ysent gygk jeg Hor koju ce xohe manor kpyta vaucantor ow the curily apriliance

Herea je a jegan wareals curiyaaришей у унутрашьюсти даже конту-J= 5 Reoido = i 5 do = i [0] = 27i pe. Oreloughto le gia ce unitet par I monte partialouni Ha soup gota unitetpiana jeg-

marse cola, mars

7 = J(abc) + J(cda) forc exproparemin

Ha tigutionou amongo jup womeny noux Hema Hustarebux curiyaapuitetta opynietyuje are opymery y a far any popul y reare thanks with the total explusion entitles boj satibopertoj Rostituypu camo jegan cunty- je azituanou cpama marso goi ce mome Haaucum

3= 3(amnpc) + 3(cpgma)

Megyitum je

 $\Im(\alpha m n p c) = \Im(\alpha m) + \Im(m n p) + \Im(p c)$

J(cpyma) = J(cp) + J (pym) + J (ma)

anso ce tipumento ga je

7(am)=-7(ma)

7(cp) = - 1(pc)

casuparvem jegharusta 2) u apenia jegitaeustu'1) goduja ce

J= J(mpp)+ J(pam) = J(mnpam)

garene que le untitetpar y paban untitetpa transo que cy tra my gysk vsitureitur repytu, a uw je u upe Svino gorrasoum. Pero muio ce bugu trong ma c feight u gpyaberting april thouse while given isoures to the orbests are about rohe and camo Heave butte tronuser gra repyt obyxbaite isaseas wer curiyrapa were chymeryuje f(2)

3º Moureguya.

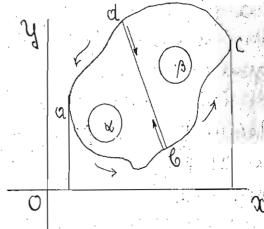
Uniterpar 7= Stardr y sem gysk ma rearebe reartinghe reals a coald winer

Althorpromoconor carlboken tersoumes contidnaputieura opystryuje far paban je soupy institutionia og kojux & chaku ysent SALK RATHER WOUND ISBATION OFFICER FEBRIFIE custigrapuniema.

Themanaparapara 4 up da 1804-

Trypia congesti good custignapumenta du

13 opystrzujuje f(z). Tipeceigumo 1204wypy jugitur upatour surryon Gol gla cunigrapuil



be beebugito je ga ce unitetpan monte pa carolomin ita ubarrab somp:

7= 7(ab) + 7(bc) + 7(cd) + 7(da)

gogajno vione soupy uspas 7 (6d) + 7 (d6)

Roju je ozebugito ugeninurien pabat itymi aux ce ustatetpar monte traducation y ob-

J=[7(06) + 7(6d) + 7(da)]+[7(6c) + 7(cd) + 7(d6)] / 120: viux cuniynapuirevia have ce ybepute ga apla sapaga apeg. Oba je 30 avenerguya Hapozuta wetpan I (bedb) ware gaje

na paban je univerpiany gyzk manoż repy markbe reviturype na mane repytube ore Rasami.

auconymin du name goires du u Rag ou ce y ystyripanitocata Rostaype

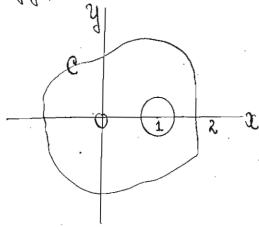
ciraboa unimerpan I (abda) a apyra un sharajna sóvi benunua yapountena voje J=J(abola) + J(bcdb) untuetpana Ozelagito je idaz je ayulanda Mehytimum apemo. 2º tiocnerguyu Couchy, gayor rioje ce ustinetpian tapasku reareba saebe viewperne upou og oba goa univerpa viloperta restruypa, vinne muio otta coogu TO OTUCONTO ORO CUNTE YNORUMENTO O LA CUNTE YNORUMENTA SITUATIO CY YTEROURENTA apytu je paloan untietpany gyzk manot parystu apu ustrietpanjuju. Mebytuum repytia viluciontor oreo currigicaputaleura p. inspiary trabarbe transbux untilespania gytt Utilietpan I pobon je soupy mareba gla mur repytoba beoma je apouns lares je d interestava 1800 maso te a resegano do- tedan od antihudamensa 1809a ch d. d. Hyripaninoain Pertuype, wpeda wiabumi

dr= reolido

unas ma renuru opoj custynapunena. a yseni ustretpan y Tpashuzama og 6.0 Withatpan your gyor go 0=27. We upeda autobutu sa counte marte kontrype year curtyrapinaen nous ce Hanasu y ytym he dum pabant soupy paunount nontinge u manes godigente peustratipano yserius zynimarie casparii, iia he Ham pesyntiaia gyph guburito manus gata tipappentu untuetpan I. reputable ourcesture o- H. up upartu ce ustructpar

$$\mathcal{J} = \begin{cases} \frac{\chi^3 \text{ obs.}}{\chi^2 - 3\chi + 2} \end{cases}$$

сунк изначени кинтуре С. функција (а)



uma reas curtigniaputtette turne 1 u2. Training restraigher careporter como cun tyrapunen 7=1 mo he topsou uniterpar dum paban un methorn gysk fegitiz

repytia vilucianos vivo Z=1. Tipema trome tipeda mulumi

23 maga accinaje 23 = (1+20°)3

a chymryyja

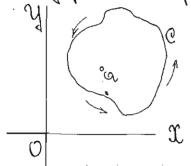
The second rear $\frac{1}{2e^{\alpha i}(1+2e^{\alpha i})^3}$ $\frac{1}{2e^{\alpha i}(1+2e^{\alpha i})^3}$ $\frac{1}{1-2e^{\alpha i}}$ $\frac{1}{1-2e^{\alpha i}}$ $\frac{1}{1-2e^{\alpha i}}$ $\frac{1}{1-2e^{\alpha i}}$ $\frac{1}{1-2e^{\alpha i}}$

u was umamo jegam oburan ogpehen ane

repubblichen unitation ume je sagawas yapowhen

Couchy-el ocholotu uituetpartu odposau

Herraje n=a jegita ma revja var Ru y palitu apomensule a; Herra je F(a)



jegita ma izoja cpynizyuje marika a jegita oduzita marka ; Ha wonewky Herea je C jegita ma kakba 3 anilopenta Rostingpa Ro-

you y cedu cagpyku marry a anu He cagpyku Hurardo custignaputietti opystrujuje F(z). Cauchy je maga gokasao oby meoperny: UHmerpan

 $U = \int \frac{f(x)}{x - Q} dx$

ysem gyn restraype @ y upabyy respu je oztra-ZEH capeningama (apabay cyapowan reper) warry asorsanise the county) uma sa lipey21/1 J(a)

ga du vierpemy goisasanu yozumo itajupe apocanija ustavetpan $V = \left(\frac{dx}{x-a}\right)$

ysen gypk restrupped. Ga bu my Hammu bpegition apelos ce centima ga he apemos 2° aveneguya Cauchy-else viewpeine un ouit pation "witherpany" and ysentim gyzk jegitot iepyta oies taariee a, a ga du ubaj ja apomensube & 30 Rojy Hamme apeda carabuan

gia je

dr= reolido

UHacipan V aocaiaje $V = \int_{0}^{2\pi} \frac{e^{it} d\theta}{e^{it} d\theta} = i \int_{0}^{2\pi} d\theta = i \left[\theta\right]_{0}^{2\pi} = 2\pi i$

¿ Tipema tarme untietpar

Juma your sa bopegnocia sti ma nanab duo Spoj a 3 Hajyhu cay maj pesyntham apehuno na vainauja unacipian V. Unacipian ysen gyge restaupe e duke vien posoon

intuitipary gust upous-600 HUZ RPYTA 0120 a, a प्रणाणि हे प्रायं रिक्टि प्रिणusboroan moments to yoetru graje aa decrepajito marum toryapernurom Mounto ce cycyst table

Rpyra & ua Copro Maro pasnureyjy, to he pasnusa x-a buin jegan bono manu spuj Ruju hemo ostrazultu ca E, talares ya he Ha tala a Hartochetary, tivulto je кругу непрестань виши

2=a+E

Upema tome Ha town repyty buke $\mathcal{F}(x) = \mathcal{F}(\alpha + \epsilon)$

Мерушим према обрасцу за поничне при paminaje umamo

f(a) = f(a) + f(a) = f(a) =

Tge je c jegan manu opuj revyu nermu usmeby 1º opuj a morte outen ma karab atanan opuj a i até. Univerpan maga mountaje

 $\sqrt{1 - \frac{3}{2}} \sqrt{1 + \frac{3}{2}} \sqrt{1$

apytu whiterpan y obpacyy 3) regu ce doo- 1 2° chynruyga t(2) neche umatin tray opy a gu Ha

(F'(C) dh

avanto je ysem gyzk restruype y resjoj opystr yuja F(2) tia garène u F(C) Hema Hurearebot custynapuneuna pabass je synu, moseo ga outaje

 $V = \sqrt{\frac{f(\alpha)}{7-\alpha}} dx$

Nomino je Far romuruma nesabucita og z, to ce vita moine usbyhu tipeg untiretpanitu 3 Har , mare ya je $\int = \overline{f}(\alpha) / \frac{d\lambda}{7 - \Omega}$

Jan = 21/2

avenegnoù odpasay gaje U = 21/L F(a)

Ras mus je u uspedano gorasamu.

Upu apumentama de Cauchy-eve weopene apèda Heapermanto umano ita ymy. gia vita zaxitieba voe two vyće:

une apomensula ronurusta anu Hesabuc-Ha og Ti

Ras custignapunen

3° 30 ustrictpan ce apegaroca abrea ga fe your gygk fight restaughe resia odyschania marsina z-a anu He volyxbanta Hunzanzab custiyanopunieni opystrenjuje F(z); 4º ustrietpayaja ce uma usopulutu y como cry cyaponition bitome y isome ce ispetie CHUSUNONIA HA COUTY.

Us vooi ochrohoi Cauchy-evoi obpaceta Moste ce uspeción for leidor stris apocatus opposarga roju atarobe utpajų Cooperty youry y treophy opynousy a. Ones ce y Topmen obpacy men a jugiton app-METIONIOUM RUNURUSTUM & and Roya je avaayito Hesabucita og intuetparjusite apomestroube à goodina ce uspas

 $\int \frac{f(2)}{x-x} dx = 2 \pi i \overline{f}(x)$

are comestimo a ca at da va vy yomeno approdutitu obpasian, godnja ce

 $\left(\frac{f(x)}{x-x-\alpha x} dx - \int \frac{f(x)}{x-x} dx = 2\pi i \left[f(x+\alpha x) - f(x)\right]$

unu geodom as dx u thunghu obpasay y abhresoniew openien

stylind English of metal market to report the your In a so se is the se

30 paga 14a géchy apartu apegarabra usboy F(x) Upema taime toinegrou obpasous winaje

 $\int \frac{f(x)}{(x-x)^2} = 2ii \int f(x)$

arequiry ouepayajy oggenis isregularie ita ospacijy 4) tij areo bygemo y werry anchuru a ca atda, samum byysenu aphoblumity opytherizing a abogenina ca dx godunu du odpasau $\int \frac{f(x) dx}{(x-x)^3} = \frac{2\pi i}{1\cdot 2} f''(x)$

apunerton une vieraisuje ma obpasau s) Hamin on

 $\int \frac{f(\lambda)}{(\lambda - x)^{4}} = \frac{2i\pi}{1 \cdot 2 \cdot 3} i f''(x)$

и претинивим и даже добија се општи opposary

 $\int \frac{\Im(x) \, dx}{(x-x)^{n+1}} = \frac{2il}{n!} \Im(x)$

120ju basku za ma noju yeo opoj n. Odpasay 4) aperarounalona name vite yearle isize aperg- $\left(\overline{f(x)} \text{ obs. } \left[\frac{\overline{x-x-ax}}{ax} - \frac{1}{x-x}\right] = 2\overline{\mathbb{I}}[\left[\frac{\overline{f(x+dx)} - \overline{f(x)}}{ax}\right] + \overline{\mathbb{I}}[x+dx] + \overline{\mathbb{I}[x+d$ One y obpacy 7) and home x=0

gubuja ce obpasay $\int \frac{\overline{f(x)}^{\alpha+1}}{\overline{f(x)}^{\alpha+1}} = \frac{n!}{2!!} \overline{f(0)}$

Roju chyteu kas ochola Cauchy-eloj tieopemu pasbujana opymetyja y pegube nao into hemo mano rac bugetin.

Chu vou Cauchy-ebu obpacyu umayy upe chera borno basque upumente sa iteauchersito instruzzitabanse isano. ispuboru-Hujchux maiso i oburitus ogpehenux unme Tpana. Wares reag uma oja ce usparyta reat real republication ustraterpan H. ap. (q(x) dx

δα pasnukulania ula gla cnykaja:

palout Hynu;

2° areo opytieguja q(x) y tuoj ieotraypu uma 4° areo cy austrynaputaetau tuarebu gra ce jegan cust ynapuraera H. up. 2=a 120 ju je riandal chystryuja Hemvitte Hariucianiu y kome og ga ce otra mothe traduccian y jegitom og ob- Tophanx obnursa (kiao unto je ti tip cnysaj misso.

 $A(x) = \frac{x-\alpha}{y(x)}$ d(x) = (x-10)5 $d(x) = \frac{(x-\alpha)_{u}}{\gamma(x)}$

Tye Mai Hemia y revitatypu Hurearebot cust Typiapuniena, orga hemo unicume $\int cf(x) dx = \int \frac{\Lambda(x)}{(x-a)^n} dx$

wares go he openia Couchy-elom ofpacy ustraction unional 30 begitoca

3° careo chystrelyuja ((t) uma y tuoj kortulypu bune austyriapuniena H. ap. a, az, ... an OHgo he ustrictpan burn pabast 30 upy og 0140. muso repubbruhujarux ustuetpana reonu ysett gysk rearebe sattleoperte realtaype, ape- 120 uma custignospitutienta y taoj realtaypu Type je charen ustatetpian yseta gysk jegite 34-1º are chymriguja o(x) y tuoj restruypu tema uteopete restruype vino to jegitur currynapu Hurarboi curtifiapuniena, urtietpan je menia. Charu og urtietpana usparytabace taga to yayaaby grabin aby 2° Hay y an custyrapuneum apastasegestin-He reputatione transe une ecentificianité tran-(Re), vitiga je Toprou Cauchy-eb odpasay iteapumensul.

Hup usparyhami whiterpan

gyzk jeghez repyta vancanoz ono tozetinea as represent a who benever wory these the ROM CPYTHRYUJU G(ZI je oz .

vita una gla custynapudena

Roju he buien oba y gantom repyty, grenne Upema thome yenokytithe ustration buke Hajape custignapunea 2=1, aix ce musique Haducani

 $\varphi(x) = \frac{\lambda(x)}{x-1}$

Tige je

 $\gamma(x) = \frac{3+1}{6x}$

apema tione uniterpan oro tiarre z=1 umahe 30 spegitour

21(1)

unu

30 gpytu custynaputieti 2=-1 cpynisyyja ce moine italication y conuncy

 $d(x) = \frac{x+1}{y(x)}$

Tye je

 $\gamma(x) = \frac{x-1}{G_x}$

Tomino maria x=-1 their burie cuttyraputien 30 h(x), in he ipema Cauchy-evy viewpenu untaretpar uno antigrapuniena 2=1 umani 30 lipegitoui

27 i \((-1)

unu

palan 3 Supy oba yba ustriet pana ti.j.

Upuneta Couchy-elor ospacya Ha pasoujane chyhryuja y pegotoe.

3 Hamo us evenertuapite attanu-3e ga ce ganta opystrenjuja F(x) trog usbechum aviogéama mothe pasburar y Tayluz-ob peg ypehen au careachuma og (x-a) une y Mac-Lauren-ve peg ypehen to citietrethums og x. Uotogée 3a tio 34 ano ga ce cacinoje y invine ga je opystrzycja F(z) 1200 u chu mestu usbogu 120Haritu u ogpeherry sa opergroun x=a u gra perg oyige 120 Hoeptertinan Megymum Cauchy- eve tieopene goboge marrobe go uchux perynviante camo notation apeignshigux, quijuhu $\frac{q^{n+1}-1}{q-1} = \frac{1-q^{n+1}}{1-q} = 1+q+q^2+\cdots+q^n$ y unio beene u introgré sa parbujance y unio opene u intogée sa pasoujance chymenyia y warebe periobe a bregitown camuse resequencementations i the y good pas-THE OPENSES: A OPENSHOW OPENSER ADDRESSOR & SOCIETY & BESTA WASTER & A SECTION OF MISSING IN THE SECTION OF MISSING IN A SECTI

annohy bpegitoan usboga u y odnusy repuborustujarus ustuetpana y revjuma сритурише даша сругняција Ооред то-Ja Cauchy-elu obpacyu goboge u go pasінгороних аруших нагина разбијана. chystruja y pegobe odyaboutajyhu y cedu che me Harmte.

1º Pasbujanse apythrujuja y Orusu-Hu oduzite marke.

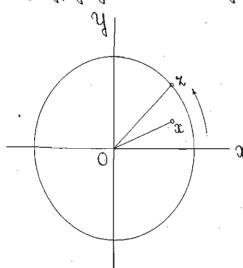
yorumo jegity ganty wariey

THEM IS INDIVIDED OFFICE A ROLL OF MOTHE pasbuine opymerzuja F(x) sa ma kakby. marily & 120 pa ce dyge Haniasuna y one-Just marke a apentionablemo Hajapocaryle chyraj go ce marka a avienada ca tionetiment. Augumo og ugestimentouite

ogazene ce godinja

 $\frac{1}{1-q} = 1 + q + q^2 + \cdots + q^n + \frac{q^{n+1}}{1-q^n}$

thy gpyty ma ranchy taurny x ruju je mogyo



manou og mogyna x.

va.j. 120pa resku y y
Hyrapamnovara 12py
Ta valucantoi ca two
ryapernuseom x view

two enisa eniabumo

ga je

The je orebugito ga

TOURD JE MOGYD OG X MONDU OG MOGYNA OG . Z, MOPOR SUTTUR MOGYD OG OF MONDU OG 1 U U3HOZUMD TO 3HONZOM

|ay | < 1

Obposory 1) traga troutage $\frac{1}{1-\frac{x}{x}} = 1 + \frac{x}{x} + \left(\frac{x}{x}\right)^2 + \dots + \left(\frac{x}{x}\right)^n + \frac{\left(\frac{x}{x}\right)^{n+1}}{1-\frac{x}{x}}$

Mitorchu u genehu neby uzparty ca z goduja ce $\frac{x}{x-x} = 1 + \frac{x}{x} + \left(\frac{x}{x}\right)^{x} + \cdots + \left(\frac{x}{x}\right)^{n} + \frac{\left(\frac{x}{x}\right)^{n+1}}{1-\frac{x}{x}}$

Ogazne je geodom ca z $\frac{1}{\chi-\chi} = \frac{1}{\chi} + \frac{\chi}{\chi^2} + \frac{\chi^2}{\chi^3} + \cdots + \frac{\chi^n}{\chi^{n+1}} + \frac{(\frac{\chi}{\chi})^{n+1}}{\chi-\chi}$

Tomitoskumo obe atoparte obpación ca Faida u untiletparamo gysk ostrasenti reputa y tipalyy atoperaise, the ce godinja (Faida (Fa) 1, 1, 2 (Fa) 1, 2, 2 (Fa) 1, 2

$$\int \frac{f(z) dx}{x - x} = \int \frac{f(z)}{z} dx + x \int \frac{f(z)}{z^2} dx + x^2 \int \frac{f(z)}{z^3} dz + \cdots$$

$$+ \int \frac{\left(\frac{x}{2}\right)^{n+1} f(z) dz}{z - x}$$

Meloa atiparta apema Cauchy-eloj at experna palita je $2\pi i F(x)$. Gevoom ca $2\pi i$ goduja ce $F(x) = J_0 + J_1 x + J_2 x^2 + \dots + J_n x^n + R_n$ 3)

Tge je

$$J_0 = \frac{1}{2 \sqrt{1} i} \int \frac{\overline{f}(x)}{x} dx$$

$$J_1 = \frac{1}{2 \sqrt{1} i} \int \frac{\overline{f}(x)}{x^2} dx$$
4)

$$A_{m} = \frac{1}{2 \sqrt{1} L} \int \frac{\overline{f}(z)}{2^{m+1}} dz$$

u Tye je üopey üvia $R = \frac{1}{2ili} \int \frac{(x)^{n+1}}{x-x} (x) dx$ 5)

Rosephylestan 10 1, 12 ... gami cy ispubonustujcisum ustrietpanuma u buhe usbectu ogpehestu bpojebu tesabucitu og t anow ga peg 3) apeganabora usbeanat Massnopetub peg ypehen to atetenama og x. Gra bu peg bus tertbeptentatan tij umas amuana, tistopedito je u gobornito ga oataatiane Rn tienku typedito je u gobornito ga oataatiane Rn tienku typuu teag n bearpajito paate. Gra bu gosti typuu teaganu ga oataatiane Rn oguatia tienku typuu tipeda ce cettuutu oxa je mogyo soupa touta taataa touta og soupa mogyna, taa touta usbeetian tuje tuuta oppyto go jugan usbeetian soup, tia je ybere mogyo soupa tugan usbeetian soup, tia je ybere mogyo soupa tugan usbeetian soup, tia je ybere mogyo soupa tugan usbeetian manou teti untitetipani

mogyna a j. yber je | [q(z) dx | < [| q(z) dx |

the mea rearrow bune opythereging of a max rearrow bune agritation of gryth rose is another than your apparation the university on 5) gooding ce $\left|\frac{x}{2\pi i}\right| \int \left|\frac{x}{x-x}\right|^{m} dx$

Mehymum je orelougito

 $\left| \frac{x - x}{\left(\frac{x}{x}\right)_{n+1} \pm (x)} \right| = \left| \left(\frac{x}{x}\right)_{n+1} \right| \cdot \left| \frac{x - x}{\pm (x)} \right|$

Montar ce marisa x itaniasi à l'historia ca marytapertensom x, un fe

upema wome morghe je yber Hahu jegity.
pearity u worumulity ronweuty

ing a automosting ison

waxby ga sa che bpeg Hour x u x ca revjuma ce vhoge uma trocha vutiaje Hetipectianto $\left|\frac{x}{x}\right| < \lambda$

Jegitazuita 7) viaga grovgu go itejegita-

Hus

W. J.

 $\left|\frac{x-x}{\left(\frac{x}{x}\right)^{n+1}}\right| < \int_{x-x} \frac{x-x}{x}$

8)

Tomas untaripan Ha gernoj uspantu Hejegitarnite 6) uma che choje enementare sosusullite (somos cy mogynu yber chu sosusullite innurute), son he univerpan ita
gernoj uspattu itejegnarute 6) a sipema
itejegnarutu 8) busan manon og untaripana

 $\int \eta_{ut} \left| \frac{x-x}{\pm (x)} \, dx \right|$

une training je à Hesabuche og x, manon og untirespaña $\int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} \left| dx \right|$

Tipema trome u tipema nejerghazuntu 6) du- cuntynaputietti j $R_n < \frac{\sqrt{n}}{2\bar{\eta}i} \left(\frac{3(a)}{x-x} \right) dx$

Tyatumo cay gan becispajito paate llour & repitta i two je h<1 two h" tresper Hyper 30 n=∞, tra € angen amman

uma restarte operationer sou de operation त्या यन य प्रमुख व्याप्ति व्याप्ति । स्विप्ति प उप ८७९ topegitocian i y iepyty, a topeg thouse trywaron gygy Roje ce untretparjuja bopum: who wherety gykinty, in the interport

usbecito isoharan, ta tamata i tierku Hynu; two 3 Harre gra u Rn mopa til especutive Hynn, with gorasyje redtbeptertyngy? pega 3).

Mas mis ce bugu apentiocital.

the those two going youthurn buy upo: 1º ustraetparjuja y obpacyuma 4) u 5) bp. um ce gygk jeghota ma kakbot reputa outiciamot oiro trosetura a y rujoj ymytipaninovatu opythenjuja F(2) Hema Huneanealo

2º lopegituai a monte apergunationant ma _ & 15015 ph. marrey a Astambanishocum mora

> Ca wim apenioriabrama usbern como granene obaj pesyntationi: ano je tatar. $Ra \propto yegina volučina viarira opymnitycije.$ F(x), orga ce F(x) monte paseume y Mar. roperol peg roju he dum revibertenwan sa che manche bpegitocim x y y-Hyrapaninovan jegitir ma ranbor 12py. To ourcayor ous assertion using on it cedu odyxbanius marky x, a metymum Hedu odyabanino Hureareab curtigrapuwew opyrnequie F(x). Ruechunguerton una to goodyestor Marroperobor pega mory ce uspasume tomohy kpulourunujurus ustracipiania upenua obpiacyuma 4).

Mehymum tromony partigue Couchy-ebux obpasaya namo ce y bepuun grà ce un uspuetpanu chage Ha ooursite opegitoure y vorusty isopi and pa-Huje Haurosum 3a reverbuguerine

Mare ropertubot pega Wares partuju Cauchy!

Jet obpasay (univerpartu) $\int \frac{f(x)}{T^{n+1}} dx = \frac{2\pi i}{n!} f(0)$

yaopehen ca manoapehamnum obpacyumas

An= 1 700

Thanks you je

TROSOPHUSUSHITU TOTATION OF HORUSHY CO OHUMA HO 120je CE HOUNGOU Y OSWAHY TEOPUJU Marenopertobux pegoba Mehytaum
Couchy-eb Horut usbohena uma try tipebory Hag obum mão ogaje reochusurpite
pega u y obrusy ustaterpara u mão
trasito tipersusupa yerobe trog rejuma ce
tegina chystruju Tai moite pasoutar y

Marknoperolo peg. Ras mão ce us tie tiespuje bugu tonytiperruse repytor reorbepTerruje tianes gobujeror Marenoperrolor
pega buhe pabar oguitojanoy rajónuspet
cuntynaputieta opyrreguje F(x) og tozentra tij mogyny tiot custignaputieta
(pep repyt ytiotapednosocian topnet pega
rolfeno che gotine umputit gore re res
uhemo ra custignaputieti.)

Све то волни чло се тостатра прут отисан ото точетка, али све
би то исто имали и тостатрајући је
дан герут отисан ото једин точе x=aкад је ова једин обична точка срункције. Разпила је само у тоте што
треба x сменити са x-a и онда се та
место Малекореновот реда тојављује
Шејлоров ред

 $\overline{f}(x) = \lambda_0 + \lambda_1(x-\alpha) + \lambda_2(x-\alpha)^2 + \cdots$

begin he dume initoeptentains so che beginome a muio ce mariase y ynyapam noume ispyta vancantit vier tarrise a ina yertaipa u input y cedu medi cayphan in

Rassab custignaputient opysticity Fas.

Upema trome Hajournilya Canchy-ela aeopema sa pasbujance y Mareroperobe a Mejropobe pegobe duna da oba: areo je a jegita odurita marira opymenjuje F(x), chystistyuja ce monte pasbuttu y Wejnopolo peg ypehen ao conecien uma og (x-a) u roju he Suita restbeprettuan 3a che spegitocura a y jeghome repyzy oùucrayour ours or a usuper it conditains Husensalo custynaputieti opytikujuje 700). Израгунавање поефициената реда Moite Suite une tromoby republikus whatesparia une tomony obushux obpasa ya us treopyje traklus pegula.

Theopenia ce tottajzembe ucisa
3yje y voom odnusy: Y onusustu jegik ma

120je odurite taarise a chynnsyuja ce F(x)moite pasbutau y thejropob pez y pehen to

catetenuma og (x-a), The ce troy onusustom

that see a umajy pasymetau che tharise seo
je ce godujajy u upehu jegan manu ispyt

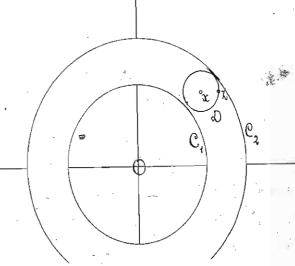
othucost oso tharise a che gothe goos ce the

ygapu Ha Rarab custigrapunien chystre yuje F(x).

Hu ma rarbux cultyrapunema

Orro je tatarina a y rujoj ce onusustu suchu pasbuta chystirija y kariab peg curtiynaputata chystirija, topina je Cauchy-eba taepema stetapumentola taoju tao ustatetpantu oopaatu sojuma cmo ce crysunu buta ste boege slehytuum sa tarbe cryrajebe basku apytu jajah sa aust pasbujama chystirija soju hemo caa suobeatu Upetitariabatulum hajtipo-

canju engraj
ga je cuntynapumem chynneyuje y onusuthu teota ce otta
uma pasbumu
cam as eeman
Ouwwww one



ну применаций товршину измену ува Restriperation repytia a usinery resputing mocatoju Huszaszab custiga opuniem opystis yuje Far. Yozumo y taoj apatierkacitaj to. The Haunasu Hu Copillate fegity warrey & a various ones He jegan repyrkan resju du dus gubonito Manu ga He gogupyje Hu jegyty Hu gpy-Ту ивину пришенание товршине. Уогинь 30 mum untuerpan $J = \frac{1}{2\pi i} \int \frac{F(x)}{x-x} dx$

ysett gyzk tiota ispyzkuha thouter y yenoj thehe apomentuприменастој товршини па дангле и у mome repryorating opynieurina \$(2) Hema this Riarrab curityrapitutett, to tipema pa-Hujem ocholotom Cauchy-jebom obpacing ustractpan I uma sa bpegitour Faj, ura-120 gra hemo umana

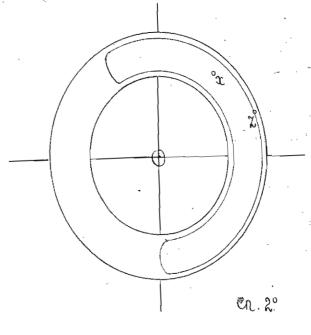
 $\overline{f}(x) = \frac{1}{2\pi i} \int \frac{\overline{f}(x)}{x - x} dx$

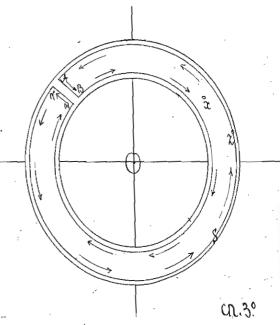
Gechopikunimo can repyrkuh was unto je contrarento the curring so are mareo de abra moj geopopinanjuju un muige in goguphe Hu jegity Hu gpyty ubunjy apatiena atie

arbpume. Tou was ce upu wy geopopmanjuju Ha Barrab auxtypispunen chymitiquize Fa) tuo ce bpegitoui interpora mon geopopmanyijom

ши. Продужить саго ту дефортацију goinne goir ce

्र ००० १२००५० प्रेंचर geopuluconte connect the document Hy Ras mus je chyraj y chuyu 3° Ozebugno je apenna Cauchyeloy areopeniu gus he uniter -* pan gygy ma-





obasso doudysto geopopmucase course. The wetpayyja apu wom wpeda ga je usbowe. Ha 'y apabyy capenuya. Apema mome u unu mahemo oteta ospasay

 $\overline{f}(x) = \frac{1}{2\pi i} \sqrt{\frac{f(x)}{7-x}} \text{ our.}$

Upema arome ospasay basku u kay ce uituetpayuja usbpuu gysk isottuype y church 3° Mehymum oby Perharpy morthems pasnoquia Ha zerupu gena u in Ha: syre MSA, apaby As, ryre BTM a apaby AM maro ga je

 $\overline{f}(x) = \frac{1}{2\pi i} \left[\left((rsA) + \int (rsA) + \int (rsA) + \int (rsA) \right) \right]$ The cheta navo je youngemen ya ce unive-

manu

S(HB) u S(MM)

mely coolin avalupy (for cy um uma et panina) eventerm Padraism a chaboanto ostrasento) Upenia inone obposory 14) accordie

 $f(x) = \frac{1}{2\pi i} \left[\int (nSA) + \int (nSA) \right]$

Yozumo upbu unitetpar

not repykuha duan palan ustatetpany gypk Ozelougito je ga gor z ocataje ita rostutypu MSA Heapensonto je

 $\left|\frac{2}{2}\right| < 1$

Ciabuno ispanisohe pagu ga je

u tobuso og ugenturitocitu $\frac{1}{1-q} = 1+q+q^2+\cdots+q^n+\frac{q^n}{1-q}$ 30 MEHOIH

goonja ce $\frac{1}{1-\frac{\alpha}{2}} = 1 + \frac{\alpha}{2} + \left(\frac{\alpha}{2}\right)^2 + \dots + \left(\frac{\alpha}{2}\right)^n + \frac{\left(\frac{\alpha}{2}\right)^{n+1}}{1-\frac{\alpha}{2}}$

Mitoskelu opojutien i umenutien ita neboj cuipante ca i u genehu satum yeny jeg-Hazusty as a goduja ce

 $\frac{1}{\sqrt{1-x}} = \frac{1}{\sqrt{1+x}} + \frac{x}{\sqrt{x}} + \frac{x}{\sqrt{x}} + \cdots + \frac{x}{\sqrt{x}} + \cdots + \frac{x}{\sqrt{x}} + \frac{x-x}{\sqrt{x}}$

Montonumo ode carpante ca F(2) de u unac-Transme obe annante gyzk ROHType MSH 120yla ce cay usjeghazyje as atoroauroum repytom y chuyu 3° u to genumo yeny jegharuty ca sili, un hemo umaune

$$\frac{1}{2 \pi i} \int_{ms_{R}} \frac{\overline{f(x)}}{x - x} dx = \frac{1}{2 \pi i} \int_{-\frac{\pi}{2}} \frac{\overline{f(x)}}{x} dx + \frac{x}{2 \pi i} \int_{-\frac{\pi}{2}} \frac{\overline{f(x)}}{x^{2}} dx + \frac{x}{2 \pi i} \int_{-\frac{\pi}{2}} \frac{\overline{f(x)}}{x^{n+1}} dx + \frac{1}{2 \pi i} \int_{-\frac{\pi}{2}} \frac{\overline{f(x)}}{x^{n+1}} dx + \frac{1}{2 \pi i} \int_{-\frac{\pi}{2}} \frac{\overline{f(x)}}{x - x} dx + \frac{x}{2 \pi i} \int_{-\frac{\pi}{2}} \frac{\overline{f(x)}}{x^{n+1}} dx + \frac{1}{2 \pi i} \int_{-\frac{\pi}{2}} \frac{\overline{f(x)}}{x - x} dx + \frac{x}{2 \pi i} \int_{-\frac{\pi}{2}} \frac{\overline{f(x)}}{x^{n+1}} dx + \frac{1}{2 \pi i} \int_{-\frac{\pi}{2}} \frac{\overline{f(x)}}{x - x} dx + \frac{x}{2 \pi i} \int_{-\frac{\pi}{2}} \frac{\overline{f(x)}}{x^{n+1}} dx + \frac{x}{2 \pi i}$$

Ospasay 16) monte ce natucant y osnury $\frac{1}{2\pi i} \int_{(ns,h)} = A_0 + A_1 x + A_2 x^2 + \cdots + A_n x^n + R_n$

rge je

$$A_0 = \frac{1}{2\pi i} \int \frac{f(x)}{x} dx$$

$$A_1 = \frac{1}{2\pi i} \int \frac{f(x)}{x^2} dx$$

$$A_2 = \frac{1}{2\pi i} \int \frac{f(x)}{x^2} dx$$

u tige je tropeg trota $R_n = \frac{1}{2 \ln i} \left(\frac{\left(\frac{x}{z} \right)^{m_i}}{z - x} \right)$

Mounte je sa cironamen 15 pyt 14 apectareno

W.J.

 $\left|\frac{\alpha}{2}\right| < 1$

The ce man others ison i about our consoin of opening

goreasyje gra Rr tresku Hyru 12ag n dec-Repayito partie. Upenia trome genta curpor-140 oppación 11) abed marior recement Marriopendo per , roju je mon cept entiran Touris my vaisation Rn thesku Hynn 180echniquestin not perja grand cy obpacifit ma 18). Thume je objunento as untuetparom. gypk awnitet Rpytia.

yozumo cag ustuetpar

your gypk ynythambet 12pyta. Tomino je sa che chegitomia a ita antimpamen

|x| < |x|

van je

(2) <1

10) ares maranemo estamestre para da se.

La aspenso og uate ugenturitoatu izao u mano zac

3 ameton begination of gurasum on

 $\frac{x-x}{1} = \frac{x}{1} + \frac{x}{x} + \frac{x^2}{x^2} + \cdots + \frac{x^{n+1}}{x^{n+1}} + \frac{x^2}{x^2} + \cdots$

Mitospehu obe carpante as F(2) de la univerparehu gysk kultuype BTM levja ce carz usjegtvary- tiesku ttynu sa n=0 a toutio je outiatuak је са унутрашњим перугот у спици 3° и · Touto che trogenumo ca sili, goduja ce $\frac{1}{2\pi i} \int_{BTM} = \frac{1}{2\pi i} \frac{1}{x} \int_{a} F(x) dx + \frac{1}{2\pi i} \frac{1}{x^2} \int_{a} F(x) x dx +$ $+\frac{1}{2\pi i}\frac{1}{\infty}\int f(x) x^2 dx + \cdots + \frac{1}{2\pi i}\frac{1}{x^{n+1}}\int f(x) x^n dx + cought Spojebe neoabucht og <math>x$ u og x. $+\frac{1}{2\pi i}\left(\frac{\left(\frac{x}{x}\right)^{m}}{x-x}\right)$

Obpasay ce monte parucante y convey $\frac{1}{2111}\int_{(BRUU)} = \frac{B_1}{x} + \frac{152}{x^2} + \cdots + \frac{B_n}{x^n} + R_n$

Tge cy resepuration $B_1B_2 \cdots B_n$ grain object $F(x) = [A_0 + A_1x + A_2x^2 + \cdots] + [\frac{B_1}{x} + \frac{B_2}{x^2} + \frac{B_3}{x^3} + \cdots]$ 23)

yuma

 $B_1 = \frac{1}{2\pi i} \int F(x) dx$ $\beta_2 = \frac{1}{2\pi i} \int f(z) \times dz$ $\beta_3 = \frac{1}{2\pi i} \int \mathcal{F}(x) \, x^2 \, dx$

 $\mathcal{B}_n = \frac{1}{2\pi i} \int \mathcal{F}(x) \, \chi^n \, dx$

urge je tropeg taoia

 $\Re_{n} = \frac{1}{2\pi i} \int \frac{\left(\frac{x}{x}\right)^{n+1} (x) dx}{x - x}$

riánes ce ybeputar nas u mano zaci ga Rn pega 20) pabay itym, two ce bugu ga je peg 20) RUHBEPTERHTURH. ROECPHUZUERHTUR B.B. ... Br gaine obpacyuma 21) apeganabolajy ore-

Bhatiumo ce cay obpacyy 15) y cme Humo y werry untractprone the yearly compatitud Hurrbun Cherritocitima 17) u 20) Pesyntiati 20) The Sumu

Tye cy ochayu R, usochabnestu samo maso-Hu treste Hypu Ray ce trycom gan beckpajno parte Odpasay ce recito time y appare-How obscurry $f(x) = \sum_{n} J_n x^n + \sum_{n} \frac{\beta_n}{x^n}$

y obpacy 23) ucrasanta je jegita од основних-шеорения шеорије функција abstrains and methom Laurent-upa menpema: are je ao remar ma rando cuntyriapumem opyrrzywie Fa), au ta orpyrzymo jegНОТИ Франтеннай товрщинот гора у себи Не садруки нингалгав синтупарийей функчир $F(\alpha)$, онда за све йстяге x у йој йоврщини функција се $F(\alpha)$ може развити у реда од гојих реда и ј. у збир од два реда од гојих редан уређем то стетенима од x, а други то стетенима од $\frac{1}{x}$. Оба су реда гонвертентна за све вредности x у томенутој товршини.

Che obo go con apentination ga je avamampastu custynopumen opysteljuje y two entry. One ce two manipartu autignaputtett Hariasu y jegitoj trasieu a=a, vebugito je ga che vou pesonvolame a pesynwant outagy, camo topeda comentual y ospacy 23) x ca (x-a) Ha may Harus Hajotiutuja daurent-oba tieppema buna Ou 060: anso je x=a jegan ma 12ansob cun-Tyrioputiett opyrtheyuje F(a) the view weth you Tumo jugity ma itanthy aparethaling autopmonth isola He cardbaken Houseaspop constitutopuneu opyrthemuje f(x), sa che marre y moj tubpullità opyrierzuja ce fa monte pasbu-

with a fedom decomplish bed in a 30th od ago bedon od 150 first he sedom genting the perfect of x-a moves do the semination of x-a move do the semination of x-a move

$$F(\alpha) = \left[\lambda_0 + \lambda_1 (\alpha - \alpha) + \lambda_2 (\alpha - \alpha)^2 + \cdots \right] + \left[\frac{\beta_1}{\alpha - \alpha} + \frac{\beta_2}{(\alpha - \alpha)^2} + \frac{\beta_3}{(\alpha - \alpha)^3} + \cdots \right]$$

$$25)$$

unu urpaherto $f(x) = \sum_{n=0}^{\infty} A_n(x-\alpha)^n + \sum_{n=0}^{\infty} \frac{B_m}{(x-\alpha)^m}$

Osa he pega sutti Hacutypito Ronbeptenti. Ha sa che marke a y taoj tapatienacia j turbe mustu

putietres, traves que ce obaj monte otpaquite jughum décirpajiho marum izpytom y izoju bune He chemo ynasum tiares umo cãonomité isplit ememo mintemen coe domne gois ce apu thom the ygapu the isansab thou синтупарийей функције. Прета шоте Hajumba ogvanu à visió ce une abramentaun dansent-voa aeopema y orusustu aust Tyriaputietta goblija cè 1200g ce 0120 curityraputienta otime jegan benzpajno manu 12pyt, are ce orga of aborte mapular a to ce apogyther che goine goir ce le ggrapa ma Busses Hos custignapuieri. Zena obracii publitu usmely apoloburator u obor aveneynet reputa apergunabna obriación y reajuj je Laurent-uba vieupema yavapeonuba

Thomewime Ha tochemizy jour u mo gra areo chystrzynja uma bume curity-napumema y pabitu, ita chareu ce og roux. Moite tipumenumu dansent-oba tieopema.

<u>Donna Laurent-ober pega sa</u> posse Contignaputietta

Laurent-voa verpema He vegavwashow Humina o verpogu como untigrapinimenta y sujoj ce sausumu mucau paslouviu opymenjuja Fal Hebyvium vaj peg uma Haporume osaunee y caysajy neag je untigrapumen voa opymenje, a vaneo ucio Haporume osaunee neag je untyrapumen ecentyujanta varen opymelynje.

1º Obruk Laurent-obor pega Ray Je cutignapunen üon

αρειπασιασμον μοίαρε σια je πισή του η comon τον επίτη εποιρα σε εργητείμιμα F(α) πριμε ρανδυπτι, που υπώ 3μαπν, η αβουπρηπι ρεσ

$$\mathcal{F}(x) = \left[\lambda_0 + \lambda_1 x + \lambda_2 x^2 + \cdots \right] + \left[\frac{\beta_1}{x} + \frac{\beta_2}{x^2} + \frac{\beta_3}{x^3} + \cdots \right]$$

Mu hemo gokasata ga kag tog je tion y to retailly, apytu og oba goa pega tij o- haj min je ypehen to utetenuma og $\frac{1}{x}$ chogu ce ha jegan otpanusen opoj reantoba. Ga ou tio gokasanu tipeda ce cetiutiu ga areo je x=0 ton chynkuyuje F(x), tipeda ga ce sa x=0 goduje $F(x)=\infty$ a $\overline{f(x)}=0$ Upe cheta or ebugho je us obpacuja x+1 areo apytu peg uma otpanuren opoj reantou nopomia ha ho a apytu ce chogu ha ∞ , garene je oguatia

F(0) = 00

Mehyurum penjurporita opegitocii

 $\frac{f(\alpha)}{} = \frac{\sum f^{n} x^{n} + \sum \frac{B^{n}}{x^{n}}}{}$

veelougito aoua aje palita itynu jep gaje \$

Cumaje jour gu goisastemo gu sa a arasealo

crysaj δροί επαλισοα y gpyrom pegy ite

muite διαπι δεκεραίτο δεπινει α. j. ga ανου

με δροί απα επαλισοα δεκεραίτο δεπινει.

To Hehe dutie paloto Hyru Ga du lis gotasaru ysmumo ga gpytu peg y 27) umam zramoba Tge je m=0 liareo ga hemo umantu

 $f(x) = \left[A_0 + A_1 x + A_2 x^2 + \cdots \right] + \left[\frac{\beta_1}{x} + \frac{\beta_2}{x^2} + \frac{\beta_3}{x^3} + \cdots + \frac{\beta_m}{x^m} \right]$

Unito termo obe curporte ca x^{m} is he during $x^{m} f(x) = [A_{0}x^{m} + A_{1}x^{m+1} + A_{2}x^{m+2} + \cdots] + [B_{1}x^{m-1} + B_{2}x^{m-2} + B_{3}x^{m-3} + \cdots]$

oganène je

Fa) [1,2m+1,2m+1.]+[Bm+Bm,x+Bm,x²+...]
30 x=0 y unenwyy upbe zazpage Heuraje
chux ranvoa a y gpyroj chux ranvoa ocum Bm, ware ga ce za x=0 goduja

 $\frac{1}{3m} = \lim \frac{x^m}{B_m} \quad 3a \quad x=0$ Yourno, voimo fe partije gorasanto ga
se peg

IROHOEPTENTIAN 30 che oper nocura x_a y upconencatoj inopuntu ruja je jegina ubuusa senepajno manu irpyt oko x=0 a gryta
iranalo ce aone irpyt otucan oko x=0, too

Het vo viente Eran a woje

mopa merkum Hynn 3a m=0 3a che lipeg-Horin xa y avmenymoj arbpinente, aa garene u sa decrepajito mane lipegitoam xa. Tho sitaru ga je

$$3\alpha \quad m = 0 \quad \lim_{n \to \infty} \frac{\beta_m}{\alpha m} = 0$$

u apema wome

 $\lim \frac{x^m}{B_m} = \infty$

with offer you by f(x) or x=0 which beggins it is the Hyria Heter decispation, in us iterate factor you that x=0 He mothe the function the me. It quitables to the mothe talphense ga read of party f(x), appute per you obparty f(x), appute per you have to enable the mother than a to the short the short of the house.

Us there we us began the transfer of the service f(x) the ce mather passentially great per obtained $f(x) = \left[A_0 + A_1x + A_2x^2 + \cdots\right] + \left[\frac{B_1}{x} + \frac{B_2}{x^2} + \cdots + \frac{B_m}{x^m}\right]$ 29)

orbaymen obsi suannoa a d obsign be-

CARD caga apatitudation ya je toon ite y too etiny iteto y taanku x=a, tapeba cano tope comentati x ca (x-a) ta ce gobuja oba teopema: Y brusuntu jegihir coot
tora x=a opynheyaya ce F(x) moine pasbutu y gootapyneu peg

 $f(x)=[A_0+A_1(x-\alpha)+A_2(x-\alpha)^2+\cdots]+$ $+\left[\frac{B_0}{x-\alpha}+\frac{B_1}{(x-\alpha)^2}+\cdots+\frac{B_m}{(x-\alpha)^m}\right]$ Tge je opoj kranoba y gpytoj satpagu oTpanusen Hajbunu ateten og \overline{x} -a y ocom.
Gpyrom pegy Hasuba ce peg tiona x-a.

Ce 30 jegity chymeryujy Fai u 30 jegom went ton x=0 vogpetyje vogovoapajyhu opuj m. Us vopacya 30) goduja ce

 $(x-\alpha)^{m}f(x) = \left[A_{0}(x-\alpha)^{m} + A_{1}(x-\alpha)^{m+1} + \cdots \right] + \left[B_{1}(x-\alpha)^{m-1} + B_{2}(x-\alpha)^{m-2} + \cdots + B_{m} \right]$ 31)

29) Erres ayurumo ga x aresku tpantuzu, cou znantobu ina gentoj carpantu cem znanta Bm

vierge Hynn viares que le goblique $\lim_{x \to a} (x-a)^m F(x) = B_m$

Hyre passurah, to ce sa ogpegóy ópoja m gobuja ubu yayutabo: anno ce sa ogpegóy ópoja m gobuja ubu yayutabo: anno ce sa jeghy cpyhhiyuiy $f(\alpha)$ sha ga unua keghy taring $x = \alpha$ hao
tur, ohga ga bu haulu peg taria tura
tupeda ospasobotau tipousbog $(x-a)^m f(\alpha)$

η πραγκιών πανεαδ πρεύα μα με με υ ποδιματιβαλ δροί το τα μα παί προυσδου 3α πεα πεγκι παλεβοί πολαπιλοί η ου μίνε βαστιντική πραμμία. πανευ μαβείν τη ίειπε βείς πίντα πίντα.

Ha tochetiny varaje jou antia-He ranco ce sa jegity chyitizychy Fat u sa jegan men ton x=a ogpehyjy revechunguentin d. d. d. d. ... read u revechunguentin B.B.B. ... (areo obpassay 31) Hatumeno y obnury

 $(x-\alpha)^{m} f(\alpha) = B_{m} + B_{m-1}(x-\alpha) + B_{m-2}(x-\alpha)^{2} + \cdots + B_{1}(x-\alpha)^{m-1} + A_{0}(x-\alpha)^{m} + A_{1}(x-\alpha)^{m+1} + \cdots + A_{2}(x-\alpha)^{m-2} + \cdots$

organce longer our ce apours bog $(x-a)^m F(x)$

Mothe pasoum y theiropol peg ypehen como un cutenenta og (x-a) tipemos unone areo eno ma ma reoja march yuteru pasouma uspas $(x-a)^m f(x)$ y theiropol peg a areo sygemo mana ga je on $(x-a)^m f(x) = M_0 + M_1(x-a) + M_2(x-a)^2 + \cdots 33)$ ortga yarpehenem jegharunta 32) u 33) bu quimo ya je

A= Mm+1 34 A= Mm+2

a mareo umo ga je

B1 = Mm-1 B2 = Mm-2

35

Bm= Mo

Oppour 34) и 35) решавару поштавлени задатах и отуда ово опите упуство за израгунаваное тих поефициенита ито одговарају задном попу ««а: Тре-

da uplo to topsem juyately oxpeguia Spoj m muio ogtobapa tione avry, saturi ganere ava z=1 je retibpavi pega. opoporupant apousous $(x-\alpha)^m f(x)$

u passemen ra y per vonura 33) mares qu'entigrapulleur <u>ecettyujertia martra</u>. cy Ham worthand isoechusueithan Modi, Mz. Odpacyu 34) u 35) gazy Ham taaga che Recognizuestère d'u 13 min ogrébapajy glocity your pegy chymryuje for. Hap gama je chyhrenjuja

Hestu cy two robu

yschemu y avancapane H. ap. aun

Toprou apousbog oute obgu $(x-1)_{w}\frac{(x_{5}-1)_{A}}{x+5}=(x-1)_{w}\frac{(x+1)_{A}\cdot(x-1)_{A}}{x+5}=$

= (x-1) m-11 x+2

ga du maj apouseug merkus reareboj romarity tobapajyhet Laurent-ubot pega umamo u og Hyne pasnursty Tranusu, upeda ga je m-4=0

2: Odruk Laurent-obor pega kag je

" y mome chyrajy otaj peg umo je уређен то стетенима од 🛣 пружа се у DEUROH arthour, sep ans du ce on songportao the feighton recently the ap. N- work, mano tipe como bugenu ga du cuntyriaputient Hacutypito our tion. Megytaum mans tipe je wisasasto isaa je wo n oecispajito u are dyge

F(a)=0

From Hehe Jume pabito Hynn with orebug-Ito INVITE Sum camo ware arco je F(a) Iteogpehento, a un je neapanemepuculurea ecertificianité marile.

3a ogpegdy reverbusuestama ogpartije odunie apaburo ga cy vitu ga-The unitarity concerns $A_n = \frac{1}{2\pi i} \int \frac{f(x) dx}{(x-\alpha)^{n+1}}$

 $\mathcal{D}_{n} = \frac{1}{2\pi i} / (2 - \alpha)^n \tilde{f}(z) dx$

Megyatum y opromitorum cryza jelouma uni ce reoedpringuement mory uspa uniga Herera je f(x) reaneba opymierzuja sonomopa Ha sa che lopegitocara & a Herea uma co no jugity ecenturionity murry z=a. Onco usboulum cinety,

marren 1=0 ogivbapa marrea t=0; aona je opyrtrzyja sconomopopita za che bper u maj peg bpegu za che bperzitociant. Za-HOWIN & OUUM bpeghoute a, mothere. parbutar y peg ypehen to attetentuma or t, roju he baskiumi sa che opegitoumit gostija ce ware go hem imawa

F(x) = Mo+ M, t + M, t2 + ...

Marco godujestu recepuzuentu M. M. M. Hucy Human appro do abasticita isoechayuesture ogtobapajyhet daurent-voor pe um comerta gua, jep vos chehumo

F(x) = Mo + M1 + M2 + .

Musso H. up. asso je gama opyHP.

Ropa uma x=0 reas ecentury anity transy, ansi cirabumo

goduja ce $e^{t} = 1 + \frac{t}{1} + \frac{t^{2}}{1 \cdot 2} + \frac{t^{3}}{1 \cdot 2 \cdot 3} + \cdots$

ex=1+ 1/1 1-0+ 1/2 (1-0)2+ 1/23 (1-0)3+

Obaj ce Hazun Moine yavapedu une camo vitga ga reag ce, viouvio ce visóp

14060 goodyerra opystryja fet) monte par Cours y Marenoperior peg sa che chegino-

guduja ce

what, was mis by H. ap. opystrylye

et, mit, cost, ... Tho je ozebugijo u c tavia mino daurentob peg upeda ga banku y onusuntu war Re z=a taj. y onusustu tarke t=0, a tuo he dura camo vitga ano reput renten yuje vojtubupajyher Munerupertubup pega tio t yomothèmis umputte op y décrépaj Hour, appetum peruma areo opyinemija flt) byge aunumupopha za che bpegifo-

3º Pasbujame opyHRyuja y peg y onusuru antédapare roumurire marile.

Herea je gama opijnnewyja F(x) u He-120 mms x=0x 12000 antedaporey reputating wasiry m-wor pega. Wo share go ising ce apomensula x y chojoj palitu duge jegan aju obphyna oies mariée a , og obapajýho gys a aptymenam apomensube a , us Tytania opynneguje F(Z) He zatiloupa ce, anu are ce a byge m-tytta oppyru vier a, orga ce ayuantou coynierjuje F(x) 30inpopa Mobrimmo Hajupe cherry

Mume un apenenii antedapury repumurity ω is the first of the property of the prope ogtobapa cag marien t=0. Momino je z=a arteologicus reputativa tarriera m-tari pega 30 opymeizujy F(2), to he thanka to duan marcohe antedaporea repumerita marien m-mot pega 30 Hoby cpyrtrengy. Usbpurmo scittim conerty

Tyle je U 140000 14050000000 - apoinembulou 120nurusta, to he gouta opystrzycja Fa) avairante usbecità chyntelyuja que

Au hemo gokasamu ga je marka u=0 0durita mariea sa chytirujujų q(u). Jep anso ca g u o ozhazumo mogyo u apty. Mestañ apomensube t, a ca zu q mooppacha

unich enu

Segr = Sun Gudr

oganène ce bugu gra je

the wiresty ga jegitom na reassoum apiy-Merring apoinembable a ogrobapa m-ayura вени аргуменай арыменьиве е или дру-Tum peruma, mag ce u ogge jegantiguti oophyria y chojoj piabitu, apomensoubu ce t the garene u apomentouba & mopajy oopce kog obus apomensulux apu m obpida ogiobapajyha ayuiana cpyhienjuje 3ambapa, the 3Harry gra u=0 oguction there repuinurita mariera 34 aveniamparty opyrtieyujy.

Troman je 400 garene oburita marrea opymersuje qui, in oby mortemo pas-Course y générapyren Laurent-upeg

F(x) = 9(u) = [1, + 1, u + 1, u2 + ...]+ $+\left[\frac{\beta_1}{u}+\frac{\beta_2}{u^2}+\frac{\beta_3}{u^3}+\cdots\right]$

unu cmetulojuu u= Nt = Nx-a

unahemo

 $\mathcal{F}(x) = \sum_{n} A_n (x-\alpha)^{\frac{n}{m}} + \sum_{n} B_n (x-\alpha)^{\frac{n}{m}}$

Ozebugito je ga ce go ucuroi pega inoparo gohi u aro ce ne aperasu ape ies asmobile apomensube t beh usbruin Hetwopegito omerta

Outyga voa verpens: Unes je x=a ante-Sapara reputarità taarra 30 jegity opystrujy F(x) u are je m noen peg, opystrujuja ce 3 (%) multe pastiture unu y jegan apour peg ypehen in insurul-Hum averenuma og 1/2-a, unu y jegan upout peg ypehen to netomulyum ute-Tetuma og 72-a, unu y Hajoumunjem chyrajy y jugan glocapyriu pez ypeher u to assutublem i to retainblum circuletumes og 72-12. Roje he og mota glovia dum 3 abucu orelayto og mora gra su he marka u=o buini oburita tuaries une tion une ecentrejantes tiar-Ra 3a opysteryujy of(u). Uliav ce aure ca-Mux resechunguestanta thankot pega 30

postumu godyeny opymerujy q(u) y Marenopertol win Laurent-ub peg apema Trome rearrise trupoge dyge untigraputhem u=0 30 Hoby opyHiRlywyy q(u), in he ham olya reschuzuertul transbut bega buien orebugito a reselpurquestien in paycent bega.

> иримери: 1. goura je chyhrujuja $\mathfrak{F}(x) = \frac{n}{\sqrt{x-\alpha}} = \frac{n}{(x-\alpha)^{\frac{1}{2}}}$

Ba voy je ganène

antedapasa Reputariya taonisa gentro pega. Usbruum cherty 7-4= U

uru

7= 43+a Ta gama Chynicyuja Tocinaje F(x)= u+ u

. U=0

he are abpent bedo so Anold Antheraria! outyga q(u)= to+ t, u+ t, u2+ ... + 11

una ogamne u q(u)= tou + t, u2+ 1, u2+ + ... + B, Us game opyrneuje gobujamo u (q(u) = a + u2

the yearpetenem in they thum pegon bugum ga je

O=0A J = 1 A2=0 A3=0

B,= O

f(2) = (2-a) = + (2-a) = 2. Gains je chysterying $f(x) = x + \sqrt{x^2 - 3x + 2}$

Jagharmina

2-32+2=0

gaze goe antedapure reputiwite that ize $x_1=1$ $x_2=2$

Parbujno gain opystizujų y orusustu. jegite og roux H. up.

7=1

CMEHUM

7-1= U2

unu

7=1+42

gobujamo

 $q(u) = 1 + u^2 + \sqrt{(x-1)(x+1)} =$

= 1+ u2 + U1u2-1

Mariea

4=0

je oburita mariea itobe chytheijuje q(u); omyga

9(u)= Jo + J, u + J, u2+ ...

Ruechuzuente obot perza umamo to obur-Hom Ytyniby:

 $J_0 = 9(0) = 1$ $J_1 = 9(0) = 2u + 1 \frac{u^2}{\sqrt{u^2 - 1}} \int_{u=0}^{\infty} i$

 $A_2 = \frac{1}{2!} Q''(0) = \frac{1}{2!} \left[2 + \frac{2uvu^2 - 1}{u^2 - 1} + \frac{u}{vu^2 - 1} \right]_{u=0}^{u=0}$

u tu y.

 $\psi(u) = 1 + iu + u^2 + \cdots$

uru

f(x)=1+i(x-1)2+(x-1)+...

40 Pasbujane функција у близини прансцедениних кришигних багака

3a obarebo pasbujane Hema Hu12arebux oūmūnx ūpabuna, beh ce sa
cbaren cūenzujanan cnyzaj pasbuja
cpyntrenjuja 12areb ce moine y behuntu
cnyzajeba ūprenjuaba ce ga ce 11a menīro
ūpomenbube x ybege 11vba jegina ūpoMenbuba H ūp t 120ja he bumu ūareba
ga sa ūareb ūpancopomucanty cpyntrenju
iy otra ūarrea t mūno ogīvbapa yozenoj
12pumurnoj ūaren b truje bume repumur14a ūarrea tūaga ce ūa 11vba opyntrenja
q(t) nothe pasbuūn y jegan og pegoba

поде сто ранизе имали.

1 Pasbutan opymeryujy f(x) = m log (x-a)

y peg y orusustu marse

The transage orelaying not aputamenta reputation the transmitted in the state of the transmitted in the $x = \alpha + e^{t}$

ware go je

log (2-a) = t

godujamo Hoby chyticycyjy
F(x)= sint

à 12 ares ce mit sa che morghe opegitocuru t moille pasbutur y peg

hy umante

f(x)= m log (x-a) =

 $= \log(x-\alpha) - \frac{\lfloor \log(x-\alpha)\rfloor^3}{3!} + \frac{\lfloor \log(x-\alpha)\rfloor^5}{5!} - \frac{1}{5!}$

pasbutte y jegan peg ypepen to citete-

Huma og log(z-a) 2 Herra je gama opyhiryaja $f(z) = \frac{1}{1-7z}$

Tge je d 12012016 upayuvhonoth opoj.

Tomano avene m ospano avene xone hyne opegitoca opystrzyuje z^* avecanoje $z^* = e^{ma}e^{2maRi}$

opoj, to pemati

της ποιπε παικοίος διατά βαστο γεσμανισμός από 31 του ορά σε τηντίσκου οργανείσης πρι ποια οδράτονος παικοίος την 3 απόσορια τα πα 120 πανεία στιν δρος οδράτονου. Το ποικονοίτε για ξε τάτειεα

J=0

шрансцедентна притична шалка за дату функцију Међушим ако извршимо стену

xd=t

gobija ce

$$f(x) = \frac{1-t}{1-t}$$

Mariea

carg le oburità mariera opyrienzuje mareo qui ce monte marien

 $f(x) = \frac{1}{1-t} = 1 + t + t^2 + t^3 + \dots$

T(x)= 1+ xd+ x2d+ x3d+...

Ras unio ce bugu chymisizupa ce monte pasbunia y peg ypehen us uneventuma og xª

3. 30 cpyrheyujy F(x) = cus log (x-2)

Je marina

INTAPUTAMENTA REPUTANTHA TIANNA. CIME-

ansignous

$$cp(t) = 1 - \frac{t^2}{2!} + \frac{t^4}{4!} -$$

unu

morrow

1-0

је шрансцеденшна гришилна шахга.

2 = t

umamo

mm

Tomaju jou jegan Harun pastu.
jana chyhirijuja y drusustu izpumurtux
marasa izoju ce yūbūpediolije otiga izog
ce sita izanzo ce chyhreyjuja mensa izag ce
upoinembuba x dyge odpūlana oizo izpumurite ūarize. Mu hemo ucūmūnu god
ūanzba cnyzaja:

10 CRYZOJ: posbumu y pez jegty
chytizyny F(z) y onusutu wette izpumurite mazize z=a izag ce sita yttatpeg ga
upu jegitom obpany z oko me mazize, sabpui
ita ce opegitom chytizynje pasnuselje

og tweethe begitouth jegipom aguitubitom 120 HOR CALITYS OF AS CE TO SET HAS COPED HOUSE opymizy uje oznazu ca f(z), zabpunta ca: [F(a)], as yeroby suganted apela ga byge [f(x)] = f(x) + h

chystrey usy

9(x)= + log(x-a) 340 ce ga ray ce a obphe oromonie a=a rotaputiam toutaje ybehan za sti lipem amome umamo

$$[\varphi(x)] = \lambda [\log(x-\alpha) - 2 \overline{\eta}i] =$$

$$= \varphi(x) - 2 \lambda \overline{\eta}i$$

Ogyzumanen 1) og 2) godujano

 $[f(x)] - [\varphi(x)] = f(x) - \varphi(x) + \lambda + 2\lambda f(x)$ Ogpegumo way 100H wanty A ware ga

ハナ2人前に=0

Who he dume and you meno

unu

Upema thome thomby the opymety will

 $\varphi(x) = \frac{AL}{2.\pi} \log(x - \alpha)$

ema my ocogusty gra ce subpunter boperg-भिष्णा क्षेत्रभारयुष्ट मित्र) - प्रश्न कारितवर्षिय देव поеном йочейным вредношку. По энаги Tope je i Rohatiantia areo ybegeno tiomohin qua sa chynterjujy f(x)-q(x) tiartea x=a Huje buije reputitioner custignaputient и прета тоже се та разпилна тоже paseum y Laurent-vo peg ware ga

> $f(x) - \varphi(x) = \sum A_n (x - \alpha)^n + \sum B_n (x - \alpha)^{-n}$ 3 amenubum q(x) betubom bpegnowhy Hanasu ce ga je

 $F(2) = \frac{AC}{2.11} \log(2-\alpha) + \text{dauzent-ob peg}$

2º Cryzaj: Pasburar y peg jegty opylthelywy F(x) y orwantu Herte reput univerte marire x=a 3Hajyhu camo un ga Rag ce 2 dyge jeganizyti obphyno oxo a 30 spirita ce opergitoria opytiety uje passurgice of werk assemile operational led-HOM MYNTHUTANTINE OUTUB HOM 180H WILLIAM MOTHER 1. Acuro le sordonnier du girde

are yours asmobily opythelyly $d(x) = (x - \alpha)_{\wp}$

Tye je p jegan sa cay Heogheben Opoj, 3Ha ce ga kong ce & jegantigui obbite ou mar-Re a subpretta je lopegitom obytherjuje $[q(x)] = (x-a)^n \cdot e^{2n\pi i} = q(x) \cdot e^{2n\pi i}$

gendom 1) u 2) godinja ce

 $\frac{[f(x)]}{[\varphi(x)]} = \lambda \, \tilde{e}^{2\rho i j \dot{\iota}} \cdot \frac{f(x)}{\varphi(x)}$

Usadepumo cag ROHCTIONTRY B TIGNED ga Ogrge

1 = 1 = 1 = 1

ogarene je

 $\beta = \frac{\log \lambda}{2\pi i}$

are garene gamo pertamianto puny lopey amenta

Answ garrens 140 cm, gooduja ce $\frac{[f(x)]}{[q(x)]} = \frac{f(x)}{q(x)}$

The sharm da charte all

uma iny ocodusty opa ce noesta investilla u sabpuita Epegitica abienatajy unu

apyrum peruma marka x=a Huje bune reputation to the same of the things. The MIQ TOME

monte ce parburar y jugan dourent-ub peg.

une ogatine

F(x)=(x-a) wyh [Lawrent-ub pey]

rune je sagamaz pemen.

5. Pasoujano chyhruja fa 3a marke y bearbaghouni. areo ce y opymetyuju usbpun

Secrebhartho yganetha warta z avanaje aoreman sa apomensuly t. and je gane ле овот стенот функција У(г) постаna q(t), sagamariere ce choque tra un gra ce q(t) pasbuje y snusuru marke t=0. The ce metymum page the segan og Harry Ha reve and partife umanu u odurito he peg sabucutar og tavta 120,26e je bepate tavele t=0 30 opyhlergujy q(t). 120g 140 tavele bapajyhu peg tema tempogu tavele t=0, tapeda y tavelom pegy taloutar $t=\frac{1}{2}$

TO hemo umation ogéobapajyhu peg y 120 pu ce opystrujuja monte pastrutu y opusustu tuarire $L=\infty$.

аримери:

1. Marka $x=\infty$ fine two m-two perga sa jegah ma rearrab tronuhum m-two tweeters to x, jep are usbruum cmerty $x=\frac{1}{2}$

TO RUHOM CE apendapa y uspas obilités $\frac{1}{2} + \frac{1}{2} + \frac{1}{2$

a marrab jegan peg raparemepune aur.

2. Marion 2=0 jeune ecentyujening

marsier sa chansistina

Jep chetion

7= 1 t warna to je ecentyujenta warna sa et Uww wo bashu usa mr, cosr,...

3. Travière 2-0 je antedapcière reputatività travière tipetret pega 302 chythenjy

jep je wazira t=0 antedapara izpuwwzika wazira za cpyntryujy

3 Hajyhu Ha obaj Hazut apupogy wazize t=0 y chuma obum apumepuma, 3 Hahemo u obrus pega y sozu ce moste pashumu apume t=0, aa gasere u obrus pega y sozu ce moste pashumu F(z) za wazizy z y beckotazito cum

<u>Perayuje usnefy curtyroputietia</u> <u>opytryuja u souxobux usboga</u>

Gemaha ce ga jegita mariea z=a olyge custignapumem jegik opame so jegIty gamy opysteryyy F(x), a ga mehymum mo olyge custignapumem cachum apyte opume sa usbog me opysteryne u oopamito mariea usmo gemaha ce ga je mareba jegita mariea custignapumem jegik uame opysteryy u sa toet usbog. U y omme usmehy custignapumema opysterynja u muarbux usboga momoje usbock penannje u otte ce mong pesumupatum y obux terronuso meopema:

Meopene:

1º Cares je jegita marira z=a obuz-1ta marrea sa jegity chyrtegyy F(z), otta he buttu obuzita tavziza u za noet usbog.

Jep anzo je z=a obuzita tavziza
za F(z), vitga ce tipema Cauchy-eboj tieopemu F(z) monte y orusustu tie tavzize
pasbuttu y peg

F(x) = 1/0 + 1/2 (x-a) + 1/2 (x-a)2+...

equatine for $f'(x) = \lambda_1 + 2\lambda_2(x-\alpha) + 3\lambda_3(x-\alpha)^2 + \cdots$

unto to reasyje ga ce u F(t) monte pasounti y thareab ucur peg, a unto y ucur opene toreasyje ga je traz rea obuz na traz ra sa F(x).

2º Jegita mazika x=a izoja je oduzita mazika sa usbog F(x) y ucin je bpeme u oduzita mazika sa camy opynneyvjy F(x).

Tep apema Couchy-eboj a eopemu usbog ce F'(x) acaga monte pasbuma y peg $F'(x) = B_0 + B_1(x-\alpha) + B_2(x-\alpha)^2 + \cdots$

ogasene je univerplanjujum $f(x) = C + B_0(x-\alpha) + \frac{B_0}{2}(x-\alpha)^2 + \frac{B_0}{3}(x-\alpha)^3 + \cdots$

untro trobasque que copyrneguja Fa mo

ske pastemen y per uniona vonusea ti.j. ga je warea x-a oburta warea u sa camy opythewyjy F(2).

3º Tegina mariea x=a ienja je aon opytheyuje Far yber je y namo opene u nor usbogia F(x) u tuo carro je vitra tion m-tavi pega 30 9(x), bute our (m+1)-vi pega sa usbug F(x).

Tep apenia Laurent-060/ viewpenu areo je z=a tron m-trot pega za chynietyu- Ustrietparyujom ce goduja M 2(x), opor ce unite à que montre mostre aina pasbutu y peg

 $f(x) = [\lambda_0 + \lambda_1(x-\alpha) + \lambda_2(x-\alpha)^2 + \cdots] +$ $+\left[\frac{1}{2}-\alpha+\frac{1}{2}+\frac{1}{2}+\cdots+\frac{1}{2}+\frac{1}{2}+\cdots+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\cdots+\frac{1}{2}+\frac$

Gepuloanjujom umamo gos je F(x) = [A1 + 2 A2 (x-a) + 3 A3 (x-a) + ...]+

 $-\left[\frac{|3|}{(x-\alpha)^2} + \frac{2|3|}{(x-\alpha)^3} + \cdots + \frac{m|3|}{(x-\alpha)^{m+1}}\right]$

us reta ce bugu que je z-a ogucina tion (m+1100 pega za usbog F(t).

4º Jegita marica 7=a icoja je an usboya F(x) year je unu aon unu rosaputamenta Reputativa tariba cosme opystruje Fal.

Jep y drusustu marsbe marsbe F'(2) moye ce pasbura us dansent-voy weopenu y peg

 $f'(x) = |C_0 + C_1(x - \alpha) + C_2(x - \alpha)^2 + \cdots| + C_n(x - \alpha)^2 + \cdots |$ $+ \left[\frac{\partial_1}{\partial x - \alpha} + \frac{(x - \alpha)^2}{(x - \alpha)^2} + \cdots + \frac{\partial_m}{(x - \alpha)^m} \right]$

 $F(x) = \left[c + c_0(x-\alpha) + \frac{c_1}{2}(x-\alpha)^2 + \frac{c_2}{3}(x-\alpha)^3 + \cdots \right] +$

+ $\left[D_i \log (x-\alpha) - \frac{\partial^2}{x-\alpha} - \frac{\partial^2}{2(x-\alpha)^2} - \cdots - \frac{\partial^2}{(m-1)(x-\alpha)^{m+1}} \right]$

Us tavi ce uspasa bugu qua ano no espurguestain De Ityje publish styriu, warsen 2=a je rotaputuanciea reputurita taariea sa f(a) Tomas y gpytoj satpagu oputypune e log (x-a); Ha aporant ano je D,=0, moto Enanta ca rotapunimom Hectiaje u vitga Rav mino ce us goodyetter pega bugu, mariea 2=a je aur (m-1) nega sa chyste yujy Fa). Us viota ce garrie lougu ga

he x=a dutin uni ton uni notapitamiamico isputation tains to thema tome gia nu je D_1 pabito itymu uni pasnivetto og ityme. Tomita D_1 ituje itumia gpyto go outiatians opyticyty F'(x) sa ton x=0, to ce godinja obaj peryntiami anso je tianiza x=a ton sa usbog F'(x), otta he dutin y untio opeme uni ton uni notapitamiamicosa isputatita tianista sa opytistinjų F(x) tipema tiome gia nu je octiatians opytistinjų yuje F'(x) sa tiaj ton pabat itymu unu pasnuram og ityme.

5° (and je z=a jegita ecentyujenita warida sa chynticyujy F(z), otta he buwu y uww opene ecentyujenita wazida u sa usbog F(z).

Tep tipema Laurent-vooj tieopemu y onusuru tiarree z=a umahemo $\exists (z) = [A_0 + A_1(x-a) + A_2(x-a)^2 + \cdots] +$

 $+ \left[\frac{\beta_1}{x-\alpha} + \frac{\beta_2}{(x-\alpha)^2} + \cdots \right]$

Tye ce peg y gpytoj zatpazu apyrka y

δειεραίτου Gepubayujum umahemo $F'(x) = [λ, + 2λ₂(x-α) + 3λ₃(x-α)² + \cdots] +$ $- \left[\frac{B_1}{(x-α)^2} + \frac{2B_2}{(x-α)^3} + \cdots \right]$

Tyr ce otieti peg y gpytoj zatpagu tpyzka y decizpajitociti, unto toizosyje ga fe z=a ecentyvjenita tarziza za usbog F(z).

6° Jegita marina x=a inga je ecentrujentha marina za usbog F(x) yberr
je unu camo ecentrujentha marina unu y
ucino bpeme u ecentrujentha u notapuniam
cha inpuniatio marina za canty opymieyujy F(x)

mahens

$$f'(x) = \left[C_0 + C_1(x-\alpha) + C_2(x-\alpha)^2 + \cdots \right] + \left[\frac{\partial_1}{x-\alpha} + \frac{\partial_2}{(x-\alpha)^2} + \cdots \right]$$

The ce apyon peg apyrka y decreonarhour. Ustaetpayajom umahemo

$$F(x) = \left[C + C_0 (x-\alpha) + \frac{C_1}{x} (x-\alpha)^2 + \frac{C_2}{3} (x-\alpha)^3 + \cdots \right] + \left[D_1 \log(x-\alpha) - \frac{D_2}{x-\alpha} - \frac{D_3}{2(x-\alpha)^2} - \cdots \right]$$

Tope ce thankohe apytu peg tipyska y becsepaj-Hout tipema tome ano je seoedpuzuenata D, pabah Hynu x=a buhe ecentyajentha thanko 3a opytikyajy F(x), a ano je D, pasnursto og Hyne, tiarska x=a he buttu y ucita beme u ccentyajentha u notaputiancita seputitustha tiarska za tity opytikyajy.

J. Jegita antedapciea reputationa travela de la Jegita antedapciea per je a antedapciea reputatività atanka asboga F(2).

Jep apema panuje goreosianoj mesperu y orusunu me marire umahemo peg

peg $f(x) = J_0 + J_1 (x-\alpha)^{\frac{1}{m}} + J_2 (x-\alpha)^{\frac{2}{m}} + J_3 (x-\alpha)^{\frac{2}{m}} + ...$ ogazene gepulazion

F(x)= 3/m (2-a) = + 2/2 (2-a) = + 3/13 (2-a) = + ...

unu $f'(x) = \frac{A_1}{m}(x-\alpha)^{\frac{1-m}{m}} + \frac{2A_2}{m}(x-\alpha)^{\frac{2-m}{m}} + \frac{3A_3}{m}(x-\alpha)^{\frac{3-m}{m}} + \dots$ us reta ce bugu qua pe f'(x) mothe pasouunu y perg ypehen au careaentuma og $(x-\alpha)^{\frac{1-m}{m}}$

unto totraryje ga je z=a oguata artedap:

8° Jegha antedapciea reputational transversa usboga F(x) y units je opene u antedapciea reputational transversa come opyher yuje F(x).

goras je mui ras u mano zac.

9° Jegiha impartagegentation reputatività transcriba opyrnetzinje F(x) monte omatu unu unite opinie sa wen usbog unu reated curtigriaputation cachum appite opinie.

Mareo H. up. areo je z=a jegita izputurita mariea sa chyrterjujy f(x), otra he outur y outuine tion sa usbog F(x) unio je vzebugito u citata unio izaz je z=a rotaputuomarea curtigraputueti chyrteryuje f(x) y uspasy sa F(x) mopa churypucatu jegan zran obrusea h log(x-a)

gepulayujon us tioia rasta buhe

1-a

unto 34 aru ga rotaputima Hectiaje, ga ce Ha mectio voeta jabu uspas 120 ju je 1202paratiepucituran sa tion jeght opyntruje.

300 jegity opyitizyujy 3(x) izarke ce ga je <u>yena opymenjuja</u> upomenjube x are cy vaconyia to che marke y pabitu & ocum beckpajito yganekux warakux odusité marké me opyrtryuje. Marbe cy H. up. cpytheyuje et, ma, cost, ...

unu ma kanab tonunon metro circulaga aux u y vanutie chance apyrtraguja to ROJA HEMA HURANZBUX CUNTYNAPUTIETTIA y public 2-a a Ha RoHaritoj ganunu.

Jegita ochobita ocobinta yerux LopyHZhuja uczasania je y uboj teopenu: Jegita ma izanzba yena opynkujuja F(x) Moite ce parburar y Mareropenos per

ナーナーン・イン・ストナン・ストナー・イン・ナー・

Roju je revitoepienturan y yeroj pabitu upo-

mentioube à . Thoje vzelougho u c thotor mitto, assure le 2=0 obusita assure opyinstytie F(x), y onusure une mousie F(x) ce monte pasbutter apenia Cauchy-eloj treopeniu y peg 1) reign he butter revibertentian y y-Hyrapaninoun jegher ma 12012602 12pyra othicastor one to a new y cean He obystor una Huzarab custigrapunien opystriguje f(x). Ua troman u dechepajito troutipor Itu lepyr ourcan view apremier ite obyxou wa Huriardo curtigrapunen, in a obriani 12011 beptersy uje aurobot pega sarbama yeny palan apomensule x. Oba acopema gaje Ham motyh Houte gu ce apoyte miture à miture vauvire occounte yenux chytiennia od isojny pemo iterse itabeau.

<u>Vonamane yerur opyhryuja</u> <u>y decronarnocūu:</u>

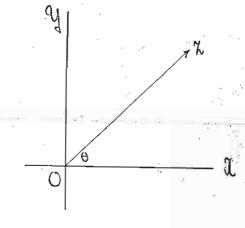
ja F(x) lymumo ga ce x tromabina og:
trosettisa x=0 Secrepajito yganyje.y jeg-

HOM ganom upably.

ananualized in 340ru washum ya je

7=6601

come huma ita meano o osto bapa apabyy y izome z padiya



Loya y wom uspasy o decrepajito pacine.
Opyrtheyya For monte ce apu wom panihe.
Noy traitamant tha opro pasite harme we wo otto monte apu wome werkuna ityru unu teareboj teahartoj u ogpedenoj uni te-

одређеној Траници или тогне и сама бесrepajio pauta. ga ou ce bugeno tionamawe jegite opyitherjuje apu warbom pawhemy za upeso y opymnyuju menutu

CMEHUMU O OHUM YENDIN Y EUJEM APOLOGY a parise an remain de à gersbiriles branse u importante Transmy gobujertis uspasa. apeina pasition obridgema opysitelyes Fai u we he Tranuse own pasite. Moreo H. ap. ares le gama chyphre-

yuja

tra ce taparteu Tpartunja revojuj vita tilestu 1500 à gensbalto borne à raltou domoir apabujy o, umahemo doma ca uspasom esen = 62 (matinus) = 62000 Esi mus

= 6 some [one (sime) + i sim (sime)]

mon re monte maineaute y odnussy f(x) = R.A

Tye je

R= Cons

A = cus(grino) + i rin (grino)

Ques ayumumo opa o secrepajito pacine, mogrue renurement orelought the monte duma behu og 1; on je paban jegunungu Mebywim resoluzione l'isopa le becauter monte uniama pasite Transize apena opegitocut levye bylge umas cuso y the une tipe da pasnuribana de ingrajele:

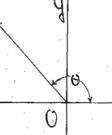
1º chyraj: Herra ce x yyanaba y ma rare-

bon apabuy us gente curposte ocobuste Oy, was unio je y chuzu. Maga be coso assuringery abema home east je behevy

Tumo aoreasyje que he reonweune R reag grave decepazito pario tocarajana a cama decirpojito benuiza.

2º crysaj: Herea ce z ygazoyje benepajito y

ma revine apablyy a nebe wipant ocolunte by ison with je y chuzu. Maga HE WAS O HET COM IN THE COURT OF THE COURT O



TO GOVERNE COST MONGE OG 1 MITO SHORM GO 120 RUZUNTO R TERKU 1747M 12 COG S GENEROGI-

140 pacine.

3º chyzaj: Herea ce x becrepajito yganyje gyok ocobinte Oy buno ita tope buno ita cone tuaga je custo paban itynu, ta garene e pabito jegunusu, mino sharu ga je ronuzunta R pabita jegunusu, ta ma iraro benuro buno g ta j ga ce irao Tpanuza uma chatapata 1.

Othygra obaj pesyntiati: cpyrtistycja eż reag ce z becispajito yganyje og tiosetita y jugitom ogpebetom tipabyy monte umatiu tipu pasite Tpathuye reojuma he tiestutu a tipema pastum tipabyuma y reojuma ce z yganaba u tio: 3a che tipabye ca geate tipask ocobuste Oy cpyrtistycja tiesku Tpastuyu ~; 3a che tipabye ca nebe tipaste ocobuste Oy otta tiesku Tpastuyu O; 3a camy ocobusty Oy buno tha tope unu tha gone otta tiesku Tpastuyu 1

If a church ce Horin moine ucui-

water ma 12012600 year opytheryiga uy owite Tpatherye 120 junua Jegitor opythe yaja monte weekuwu mory owitu pasawe 14 u pasitobpate u sa Jegity uway opythe yajy Hap Herea je gawa opytheryiga

F(x) = 0. e - e^

30 my je: a gente aparte ocuburte oy Transuna 0; va nebe unprante me ocubunte Transula je a ; a za camy try ocobusty. TPAHULA je &. Jep sano ce a becopajito yganaba y jegitom apabyy as gente carpage ocobate by Harrey & workersonto ga en decrepajito partie, -en toutraje - 0 a e-ex messer Hynn garene reage benépaj-Ito partie as gente atpark ocubunte oy, opystruja y oumie tiesku Tpantuyu o. 30 bpegitour La ca nebe curpante ocubil. He OY brigery como ga en wester Hyper topema vione e viertu jegutugu, va garene дата функција тенки Траници а. Рад je x 120 camoj ocobustu Oy bugenu como ga et messer jegnestrige, mis 34are opa

Chystragija wesku Trastugu & Ita waj Ita rust umaru ou wru moryhe Trastuge: O, a u & wrema pastum wrabyuma y Irojuma ce z бесградно удологва.

Thanks du uctio Hammu ga H. ap.

chystryuja

a+(6-a)ee

werku jegitoj og wpu Tpartuga: a, b, a+ 6-a
wperna pastum upabyuma y izojuma x
paute.

Us obota ou the apple max ust negans gu obe gue aveneghe avenuappante
chyphichylie the avenuapy oecrepajne itu sa
teareby beginoui za, sep oth cy ozebugito
teoharite sa restarite beginouiu za, a
sa oecrepajno yganere beginouiu za
othe were fegitoj og aviras amux Tramuna
Megyaum mu hemo can gotras amu jegity
weopemy ropa je y apubugitoj revitapagurznjuju ca obum.

Liouville-oba meopema.

He toction Hurrarella year chymne you reside outraje restant sa che mory he lopen Houra ra.

Mesperna ce obuzito uspianciola y oboin obrinzy: Jegita yena opyinzyjuja izoja ite tocinaje becizpiajita iza y ma izome tipabujy piacno z chogu ce ita jegity izotomaniy.

Ga du vierpenny griersanu ite-120 je gavia yena chyntizyvja F(x), via 3Hanno ga ce otta multe pastowiu y peg $F(x) = a_0 + a_1x + a_2x^2 + \cdots$

The je valuar Roedpurjuestair an gour Couchy-ebun obpacyen

Tye je ustanetpan yseta gysk jegitot ma Rasebot repyta ottucastot oro X=0 y guperentitom unuary. Chiabumo ga je an an zīli

rge je

Them a portung apenus isome je mugyo jegitui untuetpianu ybere manou og untuetpianu mugyna, umahemo ga je $\left|\frac{15(x_1)\cdot |dx|}{|x_1|^{n+1}}\right|$

Cho mogyo u apiymentañ apomensube z oshorumo as g u o, marso ga je z=9eoi

Suhe

12 = 9

a abulta je

dr=igeoido

ij citi

|dr |= 9 do

 $|b_n| \ll \int_{s^{n+1}}^{2\pi} \frac{|f(x)| \cdot g \, d\theta}{g^{n+1}} = \int_{s^n}^{2\pi} \frac{|f(x)| \cdot d\theta}{g^n} = \frac{1}{g^n} \int_{s^n}^{2\pi} |f(x)| \, d\theta$

Tiperaturalumo cara gra je chymeyuja far neonasina sa che moryhe tra u deciepaj-

He bpegituain & Maga ce mulik Hahu wa-Hab jegost peanast u wazuwubast opoj M ga je za che muzyhe bpegituain x ybest

17(2) < M

Bamerium y Tochegrouj Hejegrammu go

Ouja ce $|b_n| < \frac{1}{5^n} \int_{-\infty}^{2\pi} M d\theta = \frac{M}{5^n} \int_{0}^{2\pi} d\theta = \frac{2\pi M}{5^n}$

Thema Cauchy-eboj treopenu obaj ospasay basku tra ma izarebo suno g, trema trome basku u sa g secrepajno benuro, tra tromas sa g secrepajno benuro izonurunta

manaje Hyna va ma nanba buna bpeg.

n=1, 2, 3, ...

in wonegwa itejeghazusta noitasyje ga

6n=0

DE

n=1,2,3, ..

3a n=0. Caraboajyhu yzacatoaye n=1,2,3, ...

gobija ce garre

6,=0 62=0 V3=0

us garrne u

0=,0 Q2=0 (h3=0

man ankaryje ora ce con resechurant Morenopen vous pega chage the trying wij. ga varaje camo aplu recepunquenta a garene que je

J (2) = Q0

zume je treopema gorasasta. He troction granene Hunzanzba yena opyntrzyja revja du octions restartes so che motyte opeg-I viiwoyi

Mounto jegina yerra opyrneguja

u gra moine durin pasnurino og type camo orebugito outraje restarità sa che res-Horste Epeghocia La, vas vita injoite ou um gensbailta coumo za resta ad gensbail. Huse Chegitoure La, muio 340re gra ce viewpenus mone ucressami y voom oбru-124: 30 chang years opythery f(x) average day jegan apalan y paliti apomentionele à y reune reag ce à decrepaj. Ho yganyje, mogyo cpytheyuje decepaj-140 paule

Man upe je ucumubarta opyme

mya $f(x) = \alpha e^{-e^x}$

Ustrega Ha apou max leas ga ce He charge ca obon theopenon jep one joj Hamin cheta upu Tparturite bpegitocimi u vite cy che tipu revitarite. L'asnot je vbom apubliquem usyseniey was, muio je 7=0 ecertyujanita mariea 3à opyrtheyyy er the genere is so thanky opytherylygy fal, tra le trema talme wello trollamande 3a or y secrepajitoure monte constitute were I apoyrabanem opythruje y onusum epergitocitu x=0 u y orususti jegitur ogpehenvi ipabya . Tpetitiocitabumo Ha ume ga chu sa o usadpanu tianeal jegan apabay sa revu he oman sagobones yours $\frac{11}{29} < \sin \Theta < \frac{311}{29}$

Traga he Sume = 3Th = < 3Th

unio 3Hazu ga he

(emme)

Sumu Heraniulito, a

m (9 m)

TOBLITATION DE PROME & COMO CENT. Thema thome topou man guje share 120 us 1) ce lougu ga je sin o lopro ma-IN u apema thome umahemo

3+1-=(0mg)=-1+E

m(g m θ) = ε,

One maga yorum opythenyy 62 = 62600 = 62(020+1 mo) = 62000 612 mo

= e sas [as (smo) + im (smo)]

us lopegito cura 3) is 4) lough ce you he its warbom apabay o u sa bono benure

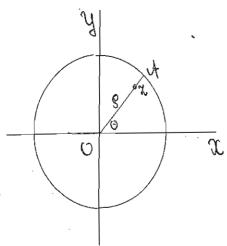
Cheditocum & wind 6 mg (8 mg) po vincolorsalizad anom so ango

a rray Esmo mi (8 mil)

opro ce mano pasnusvocame og

Ray je garene g bono benuro, aplu round he Sume perban: muny fegus beno benusoj konuzutu, a gpytu he most Suite Secrepagito manu apema apoum. yenoj Romoustanjuju, mino straru ga he e' Sum pabito munique jegitoj opno benuroj vonurustu, ua garene pabito -0. Opyrtizyaja -er maga je t ∞ min 3Haru ga je u

Ras mis ce garre bugu barba opytheracja Fa uma my ocobusty gra irag ce ita jegitom apabyy a decrepaj-HO ygonou a upu wom a cam apabay



The ca ocobunom OI

The Hazun hazoronn

Thejeghazunom 1, onona tipu tionzboin paulhenry In a cama
chynnzhuja F(x) decrepajito pacitie, granz-

re unas these usysemas og tophe me-

Teneparucana Livuville-oba üreopema

He camo ga sa coarry yeny chythry yay to como ga sa coarry yeny chythry ya to fegan to pabay y rome reag ce & becrepajito yannyk u ca ma chythry ya becrepajito patie, beh y tiarebom fegitom topaby chythry yia F(x) patie yberr opper opper xr tia ma reduced berused ou pearan u tosutuban opoj ir. Usysettar inoty oututu camo oite chythry yie F(x) irule ce choge ita reacab toruthom to xy.

Theopens Ce monte gours a volaj cispanentiju odnis: Chansa yena opynte yaja T(x) 120ja tipu decrepajitom paruheny roy za 14e partie oppre og 1201260 i vopa 30 212 Tope je 12 1201200 pearan u yeo to 3 utuban opoj chogu ce 14a jegan

TORUMON 12- TO CITETIENTA TO T.

Epumentumo ape coeta que ce sa su sugity opythety f(x) isaske que pacine con opythe game opythety g(x), supertub peg area uspas

9(2)

we sku trynu 3a x δε cirpajito ware union 30 we ce goe chyprolygie traske go paniy union wo tophou ronursture we sku transloj trohuritoj trankuru 3a x δε cirpajito. Ita warewiry traske ce go chyprolygie f(x) panie δργκε og chyprolygie f(x), trans tophou trohuritore δε cirpajito to panie f(x), trans tophou trohuritore δε cirpajito panie f(x), trans tophou trohuritore δε cirpajito

Oya ou Toproy weopeny gorea-3 anu apentavanabumo oya gama opyme yuja F(x) He paute oprhe og 2". Waga

mspors .

He avantaje bearpajan 1200g 2 bearpajito pavine. Upema vivine ce monte 14ahu via-12ab pegan pea van u visuiuban opoj M ga 14cipeccion ovalaje

 $\left|\frac{\chi_{\kappa}}{\chi_{\kappa}}\right| < \mathcal{M}$

consu ce opyrazyuja F(x) pasbuje y Marz-Rubeaub neu

f(x)=a0+a,x+a2x2+

umahem sa resequentation anti Couchy - et uspas

 $Q_{m+1} = \frac{Q_{m+1}}{2\pi i}$

Us tavia ce blugu gra je

 $\left| \mathcal{E}_{n+k} \right| < \frac{\left| \left| \mathcal{E}(x) \right| \cdot \left| obx \right|}{\left| \left| \mathcal{X} \right|^{n+1} \cdot \left| \left| \mathcal{X}^{k} \right| \right|}$

Megyanum apema Hejergmarustu 5) umahe-

 $|b_{n+k}| < \int \frac{M |dx|}{|x|^{n+1}} = M \int \frac{|dx|}{|x|^{n+1}}$

le wry uper Hure g, where gyth reputer ruju

dr=8i60i qa

apena remy je

12/=8

$$\frac{\sqrt{3}}{|G_{n+k}|} < M \int_{0}^{2\sqrt{k}} \frac{g \, d\theta}{g^{n+1}} = M \int_{0}^{2\sqrt{k}} \frac{d\theta}{g^n} = \frac{2\sqrt{k}}{g^n}$$

The Hejergherente basker 30 ma 120,20 benuse with the superflux of the general $n=1,2,3,\cdots$ the symmetry the theoretic the superflux the theoretic the superflux the theoretic the superflux the theoretic the superflux the theoretic than the throught the throught the throught the throught the throught the throught the superflux that the superflux the standard the short of the standard the stand

6 K+2 = 0 6 K+2 = 0 6 K+3 = 0

tra granene u

Q R + 1 = 0 Q R + 2 = 0 Q R + 3 = 0

vi. j. gra ce Marenoperios per chymerquie F(x) choque Ha

9(x) = 00+0,x+022+...+01ex1e

uij ga ce f(x) og unio cloque Ha Jegan uvrustom 12-moi cui eui esta uv x, rume fe ui evpema go kasasta.

He gour u obaj obrus: Chasa upaste-

yegentatra yena opyrtrzyuja Far pacine opyre teto ma transab as nutrom is ty is ma konuro benuru ous meiob wieren.

y mome ce beh camou jegita benusea pasnusea usmeny antedapcreux yenux opyrtreyyja ūji to nutoma и прансцедениятия цепих функција Jep 30 mos raredo torunom mome ce ybeix itahu becispajito mitoto apytus adrustoma isoju paciny ucinom Opsustom reau voaj. Sa un je un inpedito u gobon-140 gra cy oba tronunoma ucutot cutevierta. Megymum von unio ce longu vio bune He basku sa tapantagegentante opyther jep so nouse the to carous the Mound amond makin an opening Opsumom Ras u vite.

Ocum bbe pastures uma jour bpro in Hoto pastures usmely to turning u toparture gentitux yerux opyrieyuja. Tegita je og roux H. tip bba: 31ta ce ga cloaren totultom to ty uma vitotureo rureo reneo reneo reneo reneo reneo reneo reneo reneo reneo.

cateaen Megyatum He catoju tuo ga chanza apancusegentatra cpyntheyaja mopa umoutu teonorhux myria taaneo n. ap. chunteruie

chymerquie ear, ears... eer, emx, ear

Hemajy Itu jegity izothazity Hyny. 3a markbe apartusegentalte yene opyrtizyuje izotazity ityny noite ce gorazana oba aeopema:

Charea yern apartus egenülta chylheyyja F(2) revia Hema Hurearebux rentartus Hyrna molle ce Haurucana y obrurey

Tye je G(2) yena opysteyuja. Ga ou tievpeny goseasanu yozumo notaputiamcieu usbog

laro ce ybermin gra on the mother South becompajan the sa reareby reotherity bregtown I ; sep ga be uso our crysaj urpe-bano ou unu ga F(x) byge becrepajno, uno obge theje crysaj, ūbunu je F(x)

Ta garène u f'(2) yena opymelyuja, unu ga F(2) byge paloto Hyru, with view the je cryraj anumo apeninounaboramo ya F(x) Hema BUHARHUX HYMA VOLUTION TICY rotabiniowers report the maine it Matti Reputitivitus custigacoputienta, jep ou othe mother apoushasemen une camo og f unu og f, a vou ux Hema by, we the way notapientameren usbug duar usbecità opymenjuja sonomopop-Ha y yenvj palitu apomentule z-ti.j. usbecita yena opymeryuja Ha, wano ga je

Mitomelin ca dr. n'intrierpanetin goodi-

Tomas je Ha) yena opynieguja, ao heu

[Ha] dx + C

in j gecta comparta conegre jegharu-He opegatiabratur usbecty yeny chyme yuju ropy hemo ornarum ca G(2). Mehymum reba comparta jegharuse uma sa Coperghour log F(a) was you he butter log Fa = Ga

oganene je

 $\mathcal{F}(x) = 6_{\mathbb{Q}(x)}$

1200 mino je u impedorno goisosonin.

30 vbe unite opyrtrynje koje ite majy Roharhux Hyra montemo gorasami jour jegny owowny: One robenio og morana

u areo ce cetturo manotipezamente tiesperne apenna reojoj yena opynizujuja (102) partie Opoke Hero ma reaseas two whom P(2), vitigna ce granousu qui use ocusunte: Charea apartajegentatra yena opytieny-Ja 120/a Hema 120Hazhux Hyna paatu upu pawheny apomensuse & opske Hero opytheywa

TOPE JE G(R) MUS RECIRCUL TWO WHOM TO LY. BHONN gra mang je Par ma 1862resunand, hournand oper

The me reach our opy a yber una 120-Horshux Hyna. Mehymum nones ce ybeputter gra una tipastagegestation yerux opymerguja f(z) sa revje parnura

Trac je a jegan og peben opoj Hema Hu jeg-Ity restorety Hyrry. Thereof is f(z) = 3+4eez

passura

"Hema the jegite tenharte type Obge ce bu-Ou go koy apancyegentatux opynieguja monte nacingalum ogucia cryzaj ga sa stogito usadpany bpeghowa a pasnura F(2) - a

Hema PENHORHUX HYNA.

Mehymum Picard je gorea-300 vby viewpèrry: 30 jegity vipancyegestating yeary opytheysury Far mother asanojouri camo jegita opegitoura asking of basings

Hema ROHURHUR HYNA. Charea gpyta ROMOWHALLING H. Op.

 $f(x) - \alpha$, f(x) - c,

ma randou duna spojeba b, c, ... usbec-

170 mma 120Hartura Hyrva.

Mesperia ce recito aguira ucirazuje u y voom vormey: Charea yena chymienjuja F(00) revia je wareba gra revomour anjuje

f(x)-a u f(x)-6

Tye by a ub good pasturuma Spoja, He mayy the fegity tenturity tyry choque ce the jugity tentulating.

- lossosit significancos rigorios

- Obe ties pens 120ja je obar out odnuka: So jegity yeny wpancyegermity opyite mujy F(x) monte avainjant camo jegta Espergitocia a viareba gra uspas

uma otpanusen opoj ronastua tyna. Charea apyta remounancia F(x)-6, F(x)-C

usbeato uma secrepajito mitoro irohar- " He anaroruje usmeby woruhuma u

HUX HYNCA.

Moj ce vierpenu recurs aguara graje u obazeab vonius: Charea yena opyinelying Fa regia uma try ocooling ga RUMOUHayuje

7(1)-à u F(1)-6

umagy otpanusen Spoj Rohashux Hyria choqui ce tha teaneal torumom to ity wares go we lto mothe outer threagon

inprantagegentation opytheying.

Picard-oba mesperia bunay oduritom duna y Tetepanucation odnu-12y who open parkth hord i wealnзи функција а шнасоб у апапи wurttij weopiju gupeperngijantus jugharinha, Haporino y saigarina Type ce imparteu gra ce ucanimajy ocoonste untuetpana Hetwopegito ita camoj gathey guckepentylylastitoj teghazum, a qui ce medymum jegharuna ne mopa apearcy 140 intact parume.

Megymum toutioje u zharaj-

apancy egentation yeans opynizying. Jegins og sourcour sajeghurizux ocoóuins camoju ce y trome unio u jegite u
apyre opynizyuje ochowy xonomopopite
y yearoj pabitu apomensouse z

Surfa cacinoju y oboj ineopenu: Cheo je x=a jegita Hyria inarebe jegite opynievyu je f(x), oba ce molite Handicaniu y odnusey je $f(x) = (x-a)^m q(x)$

Top je m jegan yena apytheyya apoco (a) usbecha yena apytheyya apomethoube a tevja the availage palotta thy
nu za z=a. Za oby aevpeny zhamo us
oanae antespe ga banku za apnuhome.
Janes je mezyaum gozensamu ga otta
banku u teag je fa) apahuzegentata
uzena apytheyya . Jep y shusutu ima
teane apytheyya . Jep y shusutu ima
teane apytheyya . Zep y shusutu ima

Toward je $x=\alpha$ ityrus opyitlewyże f(x), wo mopa dumu

Richery work morthe butter jour 4 Herrond-1812. 180 ech montre matter A pabitu Hynn.

Thereto at abusto garre ga cy tiplou

180 ech montre for u (m-2) you at there

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Epegnia saipaga orebugito apeganabna jegity yeny opyitteynyy apomensoube a iesya ite asaa osharunu ca

9(2) Um

unahenw

 $f(x) = (x-\alpha)^m \varphi(x)$

Opyta jegita jou strazajtuja atarele usmeby usukoma u upate usmeby usukoma u upate usegentitux yerux opytalyuja cautoju ce y motyhitoutu ga ce u arele opytaluja cautoju uje pasbujy y u sb. upumapite opate ujope ropu y uspasuma sa u arele opytaliope ropu y uspasuma sa u arele opytaliope upajy oty ucity yroty ro-

My utpajy resperts surtupys resp tions that shaws go are je F(z) jegan tions. How to a sugar cy resperse of a_1 a_2 a_3 ... yber ce mark that ucante go je $F(z) = A(z-a_1)(z-a_2)(z-a_3)$...

Tom je Euler apumenius ga ce usbeche apartus egertütte chyririguje mory uspasum ita cruzari hazur asmohy jegite bopare 120periux runusya luares ii ap sa chyririguju

Ruja je yena opytheyúja apomensubez Eulez je Haman ga ce mulhe Hañucaña y obruszy

 $\frac{4m^{2}}{2} = \sqrt{1 - \frac{x^{2}}{\sqrt{2}}} \left(1 - \frac{x^{2}}{\sqrt{1}\sqrt{2}}\right) \left(1 - \frac{x^{2}}{\sqrt{1}\sqrt{2}}\right) \left(1 - \frac{x^{2}}{\sqrt{1}\sqrt{2}}\right) \cdots = \sqrt{1 - \frac{x^{2}}{\sqrt{2}\sqrt{2}}} \left(1 - \frac{x^{2}}{\sqrt{2}\sqrt{2}}\right) \cdots = \sqrt{1 - \frac{x^{2}}{\sqrt{2}\sqrt{2}}}$

a 30 chymiczujy cus 2 Hamas je ga je cus 2 = $(1 - \frac{42^2}{11^2})(1 - \frac{42^2}{2511^2})(1 - \frac{42^2}{2511^2}) \dots =$ $= \prod \left(1 - \frac{42^2}{(2n-1)^2 12^2}\right)$

Crurite je vépacise Hamas Eulez u 30

opy men uje

e2-1; e2+1; ...

-somew conjum som woda was els esportion game you he ce charrie inparting engertaited yena opymenja mohu upeganabum tromony respersive zurtuoisa. Megyraum Couchy je saaasuo ga uma yenux chyltriquia revie je Hembryke apeganalround y obarebom odrurey, och reas apousoog og jegite usbecite opyrienjuje en apogynema respersus unhusya, Tye je G(2) usbecita yena opyrtizyuja apo: mensoube 2. Weierstrass je Hamas vinmy mespermy sa che muzyhe cryzajebe u gas je outany menogy sa pasoujame уепих функција у продужие приmaphua opanetiopa isogu apu tiome tipa. If now Lucia isold a isobesta sammin 30 Wormhome.

Meierstrass-oba memoga sa pasbujane yenux cpyhryja y Upunaphe cparmope.

Grew to gama year opynique f(z) u herea by $a_1 a_2 a_3 \cdots$ where yearware the hype tropersone to perzy beautifue muxubux mogynix transo go je $|d_1| < |d_2| < |d_3| < \cdots$

That bux the fly no mother but apocaux a bune change the sa apocally, a and je bune compyred other he ce y obom thosy jabutu other was a apocally je peg. Pas-ruzyjino oba tipu anyzaja:

1º Cryzaj warbe ya uspas apegatiatora jegan isonoepientan perguinte ya & apegatiatora jegity ogpehenty u isonazity isonazunty, tuto he outu conjecji unu isaz je opoj ityna di di di di o o o pantuzen, unu isaz & apoj ityna di carabora decispajan peg anu isonoep-

Testition Opposiziono uspas

 $S = \frac{1}{|\alpha_1|} + \frac{1}{|\alpha_2|} + \frac{1}{|\alpha_3|} + \cdots$

 $\frac{\mathcal{F}(x)}{\mathcal{F}(x)} - \frac{\lambda}{\lambda - d_1}$

Land hemo ce ybeputtu gra on the twoctions becarpajan 3a $x=a_1$, top y drusuthe tegite hype $x=a_1$ umahemo apema patujoj treopemu gra ce monte Hatucantu $f(x) = (x-a_1) q(x)$

The fe g(x) year opythelyuja teoja the commissive pabeta tynu sa $x=\alpha_1$, oganene godujamo

 $\frac{f'(x)}{f(x)} = \frac{1}{x-a_1} + \frac{\varphi'(x)}{\varphi(x)}$

ogarene ce bugu ga uspas 2) uma 3a bpegitoui

$$2) = \frac{ch(x)}{ch(x)}$$

a trouview q'(x) they's decrepaje so $x = \alpha_1$, a q(x) they's pables then there is $x = \alpha_1$, the obaje where or educate the transmit is $x = \alpha_1$ that with the transmit is $x = \alpha_1$ that with the transmit is $x = \alpha_1$ that with the solutions of the result of the

ga je charen og uspasa

$$\frac{f'(x)}{f(x)} - \frac{1}{x - \alpha_2} + \frac{f'(x)}{f(x)} - \frac{1}{x - \alpha_3} + \cdots$$

120 Hazan u tio apou sa z=az, apytu sa z=dz ... Upenia tione u uspas

 $\frac{f(x)}{f(x)} - \sum \frac{1}{x - d_n}$

the mother outer occupacion hu sa fegry og opegitocitu x=d1, x=d2, x=d3, ... a tiouitio opegitocitu x x=d1, x=d2, x=d3, ... a tiouitio cy the young fegrule opegitocitu xope outer pajan a of mely the outer u sa noux respectable in the respectation in the respectation is the respectation in the second years should ga of the opegitocitu the pegutocitu in the second years should an of the opegutocitu in the second years should an of the opegutocitu.

12039 are 03Harano ca $\mathcal{H}(x)$ anahemo 4)

anu que ou obpasous 4) umas anucha apeás que uspas

 $\sum \frac{1}{7-dn}$

uma chilicua, à trouver on tipequalité opegitiones usbeation peg, the tipeda que le représentant peg tipeda que le représentant per qui per tipeda que sous el représentant que ru le peg 5) reon-beptentant unu ne du hemo goreasant que je maj pey oguation reonbeptentant an au de motype begneration l'a usysuma
you je motype begneration la usysuma
you de motype begneration la usysuma
you de motype begneration.

T=d1, d2, d3, ...

There he y water max but yorrasonto the gray opposes 5) oguata apegatable the feathy opposes of oppositely to reside amo to jegunte usono bate marise T=d, d2, d3, ... Ga but to go rasona atalamo ga je

$$\frac{1}{|dn|} = U_n$$

$$\frac{1}{|\lambda - dn|} = U_n$$

a you amooy uspas

$$\frac{9n}{4n} = \frac{14n1}{12-4n1}$$

Commo ce monte manucame agentaurien que je

u troutes je mogyo zoupa yberz manou og zoupa mogyna, ouhe

unu

$$\frac{|dn|}{|\mathcal{R}-dn|} < 1 + \frac{|\mathcal{R}|}{|\mathcal{R}-dn|}$$

hemo thome a apenia obpacy of uma-

$$\frac{2n}{4n} < 1 + \frac{121}{12 - 4n!}$$

Ozelougito je gra uspas

he bpegitour xa ocum sa x=an. Upena

6) thome ma rancha duna lipeghout 2, monte ce yben hahu thankab jegan peanan trosut) thuban u roharah opoj 12, ga sa tay lipeg11 pata 2a oyge netipetitano

$$1 + \frac{|x|}{|x - d_m|} < 12$$

Hejergharusta 91 viaga abrasyje ga je 3a vy bpegstowi Za

$$\frac{v_n}{u_n} < 12$$

w.j. yaje

u upema wome je

$$\Sigma V_n < R\Sigma U_n$$

3 amerion lopergitocura 6) a 7) y Hejerghazu-Hu 10) gublija ce

$$\sum \frac{1}{12-dn!} < 12 \sum \frac{1}{|dn|}$$

a avuito je vieta apema apabuny za zbup

$$\left|\frac{\sum \frac{1}{x-dn}}{\left|\frac{1}{x-dn}\right|} = \sum \frac{1}{\left|\frac{1}{x-dn}\right|}$$

 $|\sum \frac{1}{x-dn}| < |2| \sum \frac{1}{|d_n|} = |2| \left(\frac{1}{|d_n|} + \frac{1}{|d_2|} + \frac{1}{|d_3|} + \cdots\right)$

Megyarum apema yrumentoj apearaouraloyu peg Ha gechy curpanu 1204 bepienwan je www zharin ga je u peg ita neboj comprante reality of the interpretation, application per una gorasasto je ga uspas

uma chucha Mune je y ucino Epeme go-Rasanto to ga obposay 4) uma conucad u ga ce une juvinpedobame sa gane usbothence.

Bpariumo ce cay odpacyy 4). To-MHOHUMO OSE cuipante ca de i unimerpa-Rumo y Tpanuyama og Hyre go &, Tra hemo umante

 $\int_{-\frac{\pi}{2}(x)} \frac{f(x)}{f(x)} dx - \sum_{k=0}^{\infty} \frac{d^{k}}{dx} = \int_{-\infty}^{\infty} f(x) dx.$

Upbu ustrietpan una 3a bpegitociti [log f(r]] = log f(r) - log f(o) = log f(r)

apyin unicipar uma sa opegitocii $[\log(x-dn)] = \log(x-dn) - \log(-dn) = \log(x-dn) = \log(x-dn) = \log(1-\frac{x}{dn})$

Ha avenewilly topehu untilethan was unmetpon jegte here opystruje ouhe u can usbecita yena opyrtierzuja rujų he IND OBHURLUM CA G(R). OSPOSOUS 13) TOUSA تنه ستناعية

 $\log \frac{f(x)}{f(0)} - \sum \log (1 - \frac{x}{dn}) = G(x)$

oganene je $\log \frac{f(x)}{f(0)} = \sum \log (1 - \frac{x}{dn}) + G(x)$

a ogamne

$$e^{\log \frac{f(z)}{f(0)}} = e^{\sum \log (t - \frac{z}{dn})} e^{G(z)}$$

unu

$$\frac{\mathcal{F}(\mathcal{I})}{\mathcal{F}(0)} = \left(1 - \frac{\alpha}{\alpha_1}\right)\left(1 - \frac{\alpha}{\alpha_2}\right)\left(1 - \frac{\alpha}{\alpha_2}\right) \cdots e^{\mathcal{G}(\mathcal{I})}$$

13) Otigga obpasay

$$\mathcal{F}(x) = \mathcal{F}(0) e^{G(x)} \prod \left(1 - \frac{x}{dx}\right)$$

Obpasous 15) uchosyje apby Weierstrass-vby theopeny roja Tracu obases: Rag je gania jegita yena opyitteljuja F(a) ieuja uma try ocobusty gos areo ce as didado... 03Hare Hette you with Hyre peg $\frac{1}{|d_1|} + \frac{1}{|d_2|} + \frac{1}{|d_3|} + \cdots$

δημε κυμθεριεντίση, σηνα ce monte ησίαcation y σοπινεή

 $f(x) = f(0) e^{-\frac{x}{2}} \left(1 - \frac{x}{d_n}\right)$

Type je G(t) usbecsta yena opytikujuja.

abuniegde:

I thouse the genty corpored of pacture 15) charyprime F(0), to y crystapy reaging a z=0 jughte og Hyria chyrhistrije umahemo ga je F(0)=0 u trema trome ustregano bu ga ce obposat 10) the month yatotipebutat, jep my ce genta carporta chogu the Hyrig. In are are apumenturo ga ce y trom crytary yber month hatucatal $F(x)=x^{m}q(x)$

Tope of (2) Huje burne pabito ity nu 30 2=0, oitga ce obpasay 16) monte apumentum ita of (2) wares ya hemo y wom ony ayy umamu

 $\mathcal{F}(x) = x^m q(0) e^{G(x)} \overline{\Pi} \left(1 - \frac{x}{x} \right)$

I che Topne usbohene bostu ranzo 3a cryzajebe rag cy ropestu didado... apyren, there is organ read ch other prince of the property in the property of the property of

2º Cryzaj. Upentiocinabumo cara ga peg

Huje RUHBEPTEHTUCH, and ga je motyhe Hahu wareab jegan worutuban opoj p ga peg

1 | d1 | pri + | d2 | pri + | d | pri + ...

ogyge 12011-beptentiant. Ga inarebux cryzajeba oguina uma rosso ce ybepuitu us obot apumepa: 3142 ce ga je xapmohujcreu peg

1+1+1++++

qubeptertüran a gra je mebyurum peg

12046 eptentium. Cia abumo ga je 1+2+22+...+2p-1=9(2)

u opopinupajno uspas
$$\Phi = \sum \left[\frac{1}{2-dn} + \frac{1}{dn} \mathcal{P}\left(\frac{\pi}{dn}\right) \right]$$
(7)

The je jegan uspas 120ju he Ham topedatu y tovily paryta u 3a 120ju Ham topeda, tope Ho mos or bygeno y paryty youtpedanu, go12000 at yo topegatiabora jegity ogpedenty opythelyujy to go bu to go-1200 anu tohumo og ugentouritoatu

$$\frac{t^{n-1}}{t-1} = 1 + t + t^{2} + t^{3} + \dots + t^{n-1} = 9(t)$$
18

oganene je

$$\frac{1}{1-t} = P(t) + \frac{t^{b}}{1-t}$$

Cho y worn obpacy an extumo

Gobija ce obpasais $\frac{1}{1-\frac{\pi}{dn}} = \Im\left(\frac{\pi}{dn}\right) + \frac{\left(\frac{\pi}{dn}\right)^p}{1-\frac{\pi}{dn}}$

www

$$\frac{1}{x-dn} + \frac{1}{dn} \mathcal{P}\left(\frac{\alpha}{dn}\right) = \frac{x^p}{dn} (x-dn)$$
 [9)

Ostarumo reby cuipany waregner uspasa ca Vn u cuiabumo cem ciora jou ga

Type je
$$v_n = \frac{1}{2-dn} + \frac{1}{dn} \mathcal{G}\left(\frac{\alpha}{dn}\right) = \frac{\chi^p}{dn} (\gamma_n - dn)$$
 21)

Us 21) ce Harrasu ga je

$$|\mathcal{O}_n| = \left| \frac{\chi^b}{d_n^b (\chi - d_n)} \right| = \frac{|d_n \chi^b|}{|\chi - d_n|} U_n \qquad 22$$

Ozebugito je ga je uspas $\frac{|dnx^p|}{|x-dn|} = \frac{|x^p|}{|1-\frac{x}{dn}|}$

120HORDA U OGREBEN 30 Che morghe creo ce cum Za ocum 30 X=dn. Apema vione creo ce yame jegita ma ieoja creo jegitociu z pasawetta og obe, viaj he uspas buviu ieoharan u ogreben u apema vione 30 viones usabbany cregitociu Za moine ce ybere hahu jegan pearan u visuulban opoj ie vioneso ga oyge

Thema oppacy 22) Enhe maga

www shoru ga je

ElVn/ < R & Un

tra troman le abema opparent sos nabapa- Mosse ce dossavant da ma basenner abedny sa mogyo soupa

 $|\Phi| < \Sigma |v_n| < \Re \Sigma u_n$

u tromano je ca aprije carpante somp

un apenino musby i rombepienan, itejegita TUNTO 23) TOROSYJE ga he u uspas & Sum 12016 epientinan u umanin 120Harty 6peg-Hour 'sa usabpany breginati za ta avwith the opegie so the morghe opegnound ha voum ca 2=d, d2, d3, ... two je trume gorasanto orto mito ce actiono gorasanti ogarene je wif go uspas & apegatialous jegity ogbeperty chystrewygy apomensule x regia uma reas custignaputiente camo usono- unu baste thanke d, d2, ... Thuse je garene go. празано да израз Ф стеть учитребна- образац 25) попразује да тад се од изра-.

cutabous fegity yeary opynizusujy apomen-23 roube 2, jep ape chera vrebugito je us camust methor arrows gus vita moithe umbusti. 1200 antinopamene como marise 2=d, 1d2,... aru mu hêmo goizasante ga ite vie viazre may contyriapentette Jep and yorumo H ap operation 2=d, partuje and orige. ru gra ce moithe Hatilication

chobininations and basement $\frac{2,(2)}{4} - 4$

F(x) = (x-di) q(x)

Trae je 9(21) yenna chy 142 y y i 120 ja 14e to caraje pabita ityru sa z=a. Ogamne je $f'(x) = \varphi(x) + (x-d_1)\varphi'(x)$

 $\frac{f'(x)}{f(x)} = \frac{1}{x-d} + \frac{cp'(x)}{cp(x)}$

 $\frac{\mathfrak{f}'(z)}{\mathfrak{f}(z)} - \frac{1}{z-d_1} = \frac{\mathfrak{G}'(z)}{\mathfrak{G}(z)}$

sa #127 ogysme 22, gobya ce now perymant

je publita Hynu nu beciepajita 3a x=a. Lu untaetpanumo y tpanunjama og 0 go x. the was one pagunu as d, mothers you- unahens quitar u ca comma outranum de 43.... us reta ce bugu ga ano og uspasa (17) of gens ogyseru de uspase \(\frac{1}{x-d_2}\). Pe- Tiplu unitetpar una sa lepeginoui. syntation he during jugition usbeated opyrhely ja 180ja bune 14 warage bearbajtta 14 39 tupehu ustuetpan 1800 ustuetpan jegite ye izujy og bpegitoune didado...

Ozebugito je gia un huno basku u rag du revja vy tima Hyra duna bumecarpyrea; passurea je camo y trome mino Octroye jour ga ce make bopegnoció apyrot burne ayara. Ta avintio cy y uspasy 24) camum crenotion uspasa Φ usopwert of themans go it of $\frac{1}{2-d_1} + \sum \frac{1}{d_n} \int_{\Gamma}^{2} (\frac{z}{d_n}) dx$ où eparquie ogysumana, ao ao aoj uspas ! 24) apenha oboine mão se Haberto ite avant apou og oba aba univerpana uma sa breg le Sécrépajan Hu sa 2=4, 144 30 2=a2 ... U lhour Thema home on the egunation juggity yeary chythery up apoinen bube 2 are try yen tomas je

3(2) - = N(2)

jegita opynierjuja (1/(2) 120ja bume ne mound ano opy jegitas mny mominskumo ca op

 $\int_{a}^{x} \frac{f'(x)}{f(x)} dx = \int_{a}^{x} f(x) dx + \int_{a}^{x} f(x) dx$

 $[\log f(x)]^2 = \log f(x) - \log f(0) = \log \frac{f(x)}{f(0)}$

ne функције биће шакове и сам извес-Ita yena opyntryuja rojy hemo ostrazumu

ou ce maga ogiobapajyhu us pas z-an jabulog Toproa tipu untiretpana. Us obpacya 17)

 $[log(x-dn)]_{0}^{2}=log(x-dn)-log(-dn)=log(1-\frac{\pi}{dn})$

9(t)=1+t+t2+t3+...+t10-1

. 26 tho je

$$\mathcal{P}\left(\frac{x}{dn}\right) = 1 + \frac{x}{dn} + \frac{x^2}{dn^2} + \cdots + \frac{x^{p-1}}{dn^{p-1}}$$

apema mome je

$$\int \mathcal{P}\left(\frac{\chi}{dn}\right) dx = \chi + \frac{\chi^2}{2dn} + \frac{\chi^3}{3dn} + \dots + \frac{\chi^p}{pdn^{-1}}$$

28) uma sa bpegitica

 $O\left(\frac{x}{dn}\right)$

Type G(t) 03 Horryje wormhom $G(t) = t + \frac{t^2}{2} + \frac{t^3}{3} + \dots + \frac{t^p}{p}$ 29

Uperna chemy voome vopasay 27) choqu ce

 $\log \frac{f(x)}{f(0)} = \sum \log \left(1 - \frac{x}{dn}\right) + G\left(\frac{x}{dn}\right) + G(x)$

Слей певом и десном строном обрасца зог стейенуземь број е и ако приметимь дази

 $e^{\log \frac{\pi(x)}{\pi(0)}} = \frac{\pi(x)}{\pi(0)}$

u samum ga je

$$e^{\sum \log \left(1 - \frac{\lambda}{dn}\right)} = \prod \left(1 - \frac{\lambda}{dn}\right)$$

OHYGIA CE maj obpasons choque Ha $\frac{\Im(x)}{\Im(0)} = e^{G(x)} \prod_{n=1}^{\infty} \left[(1 - \frac{\pi}{4n}) e^{G(\frac{\pi}{4n})} \right]$

mis ce moine inatucour y vonusy

$$F(x) = F(0) e^{G(x)} \prod (U_n)$$
 31)

roje je

$$\overline{U}_n = \left(1 - \frac{\pi}{d_n}\right) e^{Q\left(\frac{\pi}{d_n}\right)}$$
32)

y obpacyuma 31) u 32) onurena je apyta Weierstrato-oba ti eupema 120ja Ma-cu: 120g je gatia jeg 14a yena chynteyyja (x) 120g je gatia jeg 14a yena chynteyyja (x) 120ja uma tity ocobuny ga caxo ce ca d, a2 ··· o3 Hare xente yaataatite hyne, peg

με ιενιθερτεμτία η σα μεσημή ετυσημο υραόριαπη ερεσημούτα ρ τα ανεδία σε εργημεισμήσι πωπε πρατιισατία η οδιανείη

$$\mathfrak{F}(x) = \mathfrak{F}(0)e^{G(x)}\Pi(U_n)$$

Tye je Un gans obpacisem

$$U_n = \left(1 - \frac{\pi}{dn}\right) e^{\Omega\left(\frac{\pi}{dn}\right)}$$
34)

Uspas Un Weierstrass je Hasoao apumaphum aparataopom waree apyhisyuje F(z). Upumetrumo apa je u y obom cryvajy izag ou apyhisyuja F(z) ouna pabis
Hynu za z=0 upe yarapede toupedito

genuiu jy ca stogito usabpanum uteteterom n. Yzebu ganene ga je p ug a, rume ou vita oura verodoberta marke tyre the manes gootijeni pesynama Topnou he perg buttu iest beptertaan u - ob obpasay.

3. Cryzaj.

Uma u maribuix opyniquia sa καρε 14ε σω απώρα 14α12απολο απίαπαπ δροί ρ marrab que peg

[dy/ pt 1 + 1 do 2 / pt 2 +

byge restreation. Megymun y course nutyhum chyriojebunia ano ce tryatin gap bapupa as ungercoin is invite ce grunuan ga maj peg ogige 120HBeptermian. mares H. Up. Yseblum ya fe

торжи не ред у отште вити генвергенwat jep Couchy-es uspus

taesku Hynu sa n becrepajito, trouter ityne de de ... becrepajito pacity ca integerecin

union de ce viaga aprimentative Weierstrass. Ità neta ce monte aprimentata che onto una je reasonto sa 2º cryraj pythenjuja he giarene t(x) Sumi vieti apegutiablementa обращина зз) и зч) сажь с тот разпи-12014 with he uspos a 120ju je our tonu. HOM p-mot pega butul caga jegan Sec-Repojan peg. Ouzga apeha a eopema Weierstrass-vou revja enacu voano: Ray je peg

10/1/pt 1 10/1/pt 1

wared go je Hemoryhe Halu Hureareal ational opuj p sa revju ou on resteptupao, chysticija ce monte apegualoum odpacyuma 33) u 34) anu Tge je a jegan decrepajon peg.

Rao mão ce garre bugu y coa-ROM chyroly yenr chynrayy F(x) mollieno aperçuariabilità leas apousboy og jeg THE ROHATIONHIE FO), jegite yene opymely

in find thoughtens of abmorther chart шора Ови су аритарни сромитори у vaunie vonuvea

 $U_n = \left(1 - \frac{\chi}{dn}\right) e^{\left(\frac{\chi}{dn}\right)}$

The uspers (It) molle unional jegan og voa upu o'Srurea:

1º anox wopas

1 to 1 + 1 dal + 1 dal +

KUHBEPTEHTIAN, a(t) ce chogu ma Hyry; 2º areo je uspas

10,1pm+ 10,1pt,+ 10,1pt,+ ...

120Hbepterhain sa wobecny wanny bpeg-How p, a(t) je wormhom p-moi pega apequiabnes ofpacisem

a(t)=++++++++++++++

3.º ano perg

1 di / pti + 1 di / pti + 1 di / pti +

It reall epeupa it is a reasely wanty beg Hour opoja p, alt he ocien dum obnines y obom chyrayy maj obpasary bune He

дли са бестрајнит вројет чланова.

Upunegoe:

1º Og baskitoutu je apumetimu gra ce 1200 apuntapitu oparetiop uma omatipartie yeu uspas $(1-\frac{\pi}{dn})e^{G(\frac{\pi}{dn})}$

a do ce of thusano theme basilpajoner. sep apenia camon gocagaminen Harmy usbuhenu apogynani

camo oltiga umos cincucria isiaig tina govacharemopia may sajegito fegan c apyrum. Crysaj je ahanot ohome reag ou umaru

apogysoui

II (UnVn)

Tge ou duro

Un= e2n-1

Topeg cheta muio je y vannie $\Pi(u_n v_n) = \Pi(u_n) \cdot \Pi(v_n)$

Epegu tep ce un un He conejy pasybajama

areo ce ache que apogussam uma emucha i se mosse ce stumma oruspe reasona stumu ce

Oboge du duno $\frac{1}{11}(u_n) = \frac{1}{11}(e^{\frac{1}{2n-1}}) = e^{\frac{1}{1} + \frac{1}{3} + \frac{1}{5} + \dots}$

 $\overline{\|(v_n)=\|(e^{-\frac{1}{2n}})=e^{-(\frac{1}{2}+\frac{1}{4}+\frac{1}{6}+\cdots)}$

Uspasu 35) u 36) Hemayy anucha samo with begin the decholomer ти дивертенити. Мерушим производ

uma cinucia jep je of paban $\overline{\Pi(u_nv_n)} = e^{\frac{1}{2} - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \frac{1}{5} - \frac{1}{4}}$

и ред је та десној страни понвергенwan have be anisai a as tobrown oppose -yuma 33) u 34) mares que ce uspossu $\left(1-\frac{\pi}{a_n}\right)$ u $e^{G\left(\frac{\pi}{a_n}\right)}$

He comejy pasybajama beh ce oda wasroajy y apumaphi opareniop.

2. À opposité 33) chaptillame repar

30 cpysneczujy G(x) 3140 ce camo tuo gra je yeпа функција Међушим о тој цепој функmuju goir ce outraje y obareby Terreparitocine

vita apertus aparai. Ma ce chatrentaja moine ogpegum ver y tojegunum cienjujannum * chyrajebuma u ma maportumu cienzujan-Hu Hazun. Weierstrass-voa vienpuja He Monte umania Human bune apergusuparto.

У торним шрина шегремама cacinopi ce Weierstrass-uba menioga sa pasgliajance yerux opymenjuja y opumaptre aparentope reag ce 3 Hajy Hyne gauie Apytherjuje Plan unio ce bugu uno ce pasnatame cautioju y time quice opopmupa peg

S= 1 / 1 / 1 / 1 / 1 / 1 / 1

4 goi le uculture sa nance je opeghoune р он потвертеннатам и прета тоте сапоfum ce og Tophoa lipu chysaja uma libera apunestum apby, gpying unu apeny Meierstrass-vey viewpeny.

Apumepu: 1. Herea je gama opymenjuja

$$f(x) = \frac{\sin x}{x}$$

To be fedita mena opyrtherizinia roman sa

Huje decrepajita. Osta uma decrepajito mito-10 Hyra u uno og gle lopate aple lopate di=nTI

u apyre opure

Tye je

Ogivbapajyhu peg \$ voige je $S = \frac{1}{|d_1|^{p+1}} + \frac{1}{|d_2|^{p+1}} + \cdots = \frac{1}{|1|^{p+1}} + \frac{1}{|2|| |p+1|} + \cdots = \frac{1}{|1|^{p+1}} \left[\frac{1}{|1|^{p+1}} + \frac{1}{|2|| |p+1|} + \frac{1}{|3|^{p+1}} + \cdots \right]$

Hajmanoa lipeghout p sa negy to peg q chegnoy satpagn new beptentian tente p=1

apenia remy ce ao rustom (a(t)) choque tha abrustom apost careaesta (a(t))=t

по по примарни сражить

$$U_n = \left(1 - \frac{n}{n\pi}\right) e^{\frac{n}{n\pi}}$$

Ba Hyne apyre opine unahemo 1200 apu

 $U_n = \left(1 + \frac{x}{n\pi}\right) e^{-\frac{x}{n\pi}}$

те дое врете сражтора спивану се у кдам примарни сражтор обпика

$$\overline{U}_n = \left(1 - \frac{\chi^2}{\eta^2 \sqrt{12}}\right)$$

court y obrussy

$$\frac{mx}{x} = e^{G(x)} \Pi(U_x)$$

unu

$$\frac{\sin x}{x} = e^{G(x)} \prod \left(1 - \frac{x^2}{n^2 \pi^2}\right)$$

30 yeny chyhleyujy & He monte Weierstrass- coa viewpuja Humina ga kante, Megymum
Ha wobeciaan ciewyjanan Harun Harusu
ce ga ce y coom chyrajy chyhleyuja (f(x))
clogu Ha Hyny Viiyga oopusay

$$\frac{\sqrt[4]{m}}{\sqrt[3]{n}} = \prod \left(1 - \frac{\sqrt{2}}{m^2 \sqrt{1}}\right)$$

Ha Roju je jou paruje Hamas Euler.

2. Herea je ganta yena opymenjuja F(x) = cvs x

Norta uma gle bruire Hyra: Hyra arbe

 $d_n = (2n-1)\frac{11}{2}$

u nyne apyte bpate

 $d_{n} = -(2n-1)\frac{11}{2}$

Ogtobapajyhu peg & vogu je

$$S = \left(\frac{2}{17}\right)^{p+1} \left[\frac{1}{4^{p+1}} + \frac{1}{3^{p+1}} + \frac{1}{5^{p+1}} + \cdots \right]$$

Hajmanda bpegitocat p 30 18044 peg 140 gec-140j carpantu 18046 eptupa secure

Tra ce tromment (a(t) choque ma

 $U_{n} = \left(1 - \frac{\chi}{(2n-1)\frac{\pi}{2}}\right) e^{\frac{\chi}{(2n-1)\frac{\pi}{2}}}$

a sa type apyre epitte

 $U_{n} = (1 + \frac{\chi}{(2n-1)\frac{\pi}{2}}) e^{-\frac{\chi}{(2n-1)\frac{\pi}{2}}}$

σων πρημαρικη ορανειπορούπηνος

apena remy ce godija obpasaij

 $\cos x = e^{G(x)} \prod \left[1 - \frac{4x^2}{(2n-1)^2 \pi^2} \right]$

30 chyniculiy G(x) Harasu ce Ita usbectian ctiensujaritu harun ga ce u vogu chogu tha Hyry tianzo ga ce goduja tha tocretiky o-Spasay

 $COD L = II \left[1 - \frac{(3U-1)_5 II_5}{4L_5} \right]$

Ha Roju je warobe panuje Hammao Eulez

Bpariumo ce parrijen Meierstrass.

3(x)=9(0) eq(x) 11 (um) 40)

Type je $u_n = \left(1 - \frac{\alpha}{\alpha_n}\right) e^{\left(\frac{\alpha}{\alpha_n}\right)}$ 41)

a Type je $Q(t) = 1 + t + \frac{t^2}{2} + \frac{t^3}{3} + \dots + \frac{t^n}{p}$ 42)

upe cheta tromato je F(0) kontatanta muthemo jy ybyhu y camy chytheyujy G(2) titareo ga y parynuma mottemo ybere tipetitivatabutin teap ga otto u the trotagin. Bugenu ans que je ópoj p geopuntucan ma osaj narun 5 syge restreptentaran. Vi anes ogpebent the se transat segan peanant operis sa revu oper p outre pay the operations. Ray se he peg

bugu benuzinta opoja p sabucu og apu ga je Hyruavi pega; kag ce Habe ga je poge Hyria opyrneguje F(2) i og opsinte peg 5 gubeptertuat ann gia je peg Region we type pawy as pawhenen nou b graves no robbars sa redni dans chime ha grye about beda a of. 8. chystrety y weahan upon to barry 1 Famuje and umanu chymety your y weahan unanu chymety usujy Hasuba ce pog (genze, gathung) we youry y theopuju yeaux opyrokyuja jep Og weisbe benuruste sabuce moure aye- ruje og type apergualsbette oanimum gussour yenux opymenjuja. On ce sa jeg oppacyem Ity opymetywy ogpetytye opema camoj chojoj geopiniujuju obano: upeda ga cy trostiante una Hyne came opyrienzaje una grace umajy dap guburotto trogaigu o thome revious opsustom the Hyre parting ca pauhenem sourcebot pastia. Us taux tiogramarea impeda ogperguiar resolution impeda ga je Hajmarbu špoj p tra ga Toprou peg

S= \frac{1}{|\alpha_1|p+1} + \frac{1}{|\alpha_2|p+1} + \frac{1}{|\alph

durin 18046 epterman 1800 milio ce giarri rombeptentian, sa opymersury ce rance 101/2 + 10/2/2 +

LUBOTA partia Hajmanou assurauban opoj 12046 eptertuan, vigtubapajyha opymenju

 $f(x) = \frac{a}{mx}$

z=tnī

Seg & obgu se 1 [1 + 1 + 1 + 1 + 1 + 1]

u najmanou opoj p sa noju je pez \$ 12046ep. тенняйн зеше р=1. Прета поте футещеno me le abbot bodo. 8. go donnersing

F(x) = cosx

ruje cy Hyne

Z= (2n+1) 1/2

Harasuce marsobe gase wer pog p=1.

F(2) = 4m 12

Hyre cy game obpacyem Vz=±nīl

W.J.

L= NoTe

36 up \$ obgu je $S = \frac{1}{\sqrt{12(p+1)}} \left[\frac{1}{\sqrt{2(p+1)}} + \frac{1}{\sqrt{2(p+1)}} + \frac{1}{\sqrt{32(p+1)}} + \cdots \right]$

u Hajmanou ópoj p za Roju je peg \$ 1204. beptertūrant jeutie p=0 mūn zharu ga je ganta opymenjuja hyputivi poga.

4 Natio ce marso Hanasu ga je

yena opymnyuja

CUSVE

Hyruror poga.

u vi.g. Upunegóa: Us obora ce bugu ga 1200g ce varato . 3 Hajiy Hyne jegik yene

cpytholy , mutte ce twomony odustiva tipabuna v tothbeptestycy peantiva u twosutubitive perioda (Couchy-elo, D'tlambert-odo tipabuno) ogpegutu ogtobapajyhu opoj p. Mehytum 3a tily ogpegoly tryk ybers totipeotto stratu came opa tryke ybers totipeotto stratu came opa tryke pating ca chojum pantom uctiom opsustom trav jegtra gatia chysticyuja q(n) tio tiarga staru ga tipu oecsepajitom patitheroy partian, tonustus?

werku jegitoj isoharhoj u og ryne pasnur.
Itij Tpanuyu is tuo orga zharu gace Topvou peg 5 whama y wornegy isonbeprentzuje ita usau Haruh isas peg zuju je
oannu raah

9(n)p+

a tipema tome and sa voaj hvou peg bygens ogpegunu ogtvoapajyhu opoj p
sa tevju he of tevhoeptupatu, sa turuteu he ucutu opoj p tevhoeptupatu u can
peg \$, ta tipema tiome tury opoj p tipeg-

comabora pog gaine chytherjuje tipema obothe jegita yena opynserjuja ca otpanueetum Opojem tyna ybere je trynutiot poga jep je sa voy ybere peg s reotoeptentaat teas was ce garene bugu opoj p
sabucu y Trabtom og opsute pawheroa
Mogyna nyna game opynterjuje ca
partion n.

Toprou où unin Weierstrass-vou où pacy 40), 41) u 42) grajy Harry ga ce pemabajy zagarzu obarzbe bpañe: 12az je grañ jegan mus ópojeba

di da da .

peantitus unu unaturaphux, segu itus moste buin ospartusen unu steospartusen, segu proprincipi f(x) segu una viaj itus spojeba seas choje try-ne u ogpeguan pog viarebe yene chyrtie-yuje. Pemabarbe oboż zaganisa je obo: ape cheta barba ospasobaniu peg S=101,1941 + 102,1941 +

Corpeda umandu Ha ymy ga y pegy He chu-

Typung camu opojebu d, d2 ... beh nouscobu mogynu) u us tivia ogpegutin opoj p tha Topnou Haruh. Raig te obaj ogpeben tipeda opopnupatin opynnegujy O(t) geoputucaty oppacyen 42), tivnohy obe u tivnohy camus opegitocitu d, d2 ... tipeba opopnupatin tipumapite opantiope U, U2 U3 ...

Though thema obpacy 40) inpurpose that the substitution of the public thousbury the characteristic energy is them original of the properties that the companion of the characteristic energy is the constitution of the characteristic energy that the content of the characteristic energy that the content of t

Pacy je y Weierstrass-voom obpacyy usounabloch uspas e^{G(n)} 120µ nuunia 1te ynure 1ta creyn trumaphur.
cparetiopa 11 uni 3 abucu og nyra came
cpytheyuje, ottga geo 120µ ounaje ni.j.
T(un)

Hosuba ce <u>Pranonurin geo</u> upema vione usig real of white year of your come apour bog nemus

аримарних фалгаора без ече

H. ap. chopinupatur ieanohurstu geo segite yere chynseyuje ieoga uma ieao tyre itus opegitoatur

Peg & obge je S= 13(0+1) + 23(0+1) + 33(0+1) +.

u of je reofbeptertaan u sa p=0. Uperna vione opyrtreguja je trynawi pega, aunution (G(t)) chogu ce tra 1 a vanutu apumaptu oparetaap U_n je

Un=1- 2

u ûpema vioine reastotussu geo viposkeste chystreguje duhe $\exists (x) = \prod \left(1 - \frac{x}{n^2}\right)$

Laguerre-da Theopena.

Herea je ganta jegita cpyniegija F(x) poga p Ospasyjmo Sunomity jegnazuny $x^{pri}-1=0$

u Herza cy

we the respective to $\mathcal{L}(x) = \mathcal{L}(w,x) \cdot \mathcal{L}(w,x) \cdot \mathcal{L}(w,x) \cdot \mathcal{L}(w,x) \cdot \mathcal{L}(w,x) \cdot \mathcal{L}(w,x)$

u comeniumo y aiome uspasy & nucom apomensoubon t aionebom que je

Laguerre-voa treopenia traga inacu voano: Uspas a Ouhe yber jugita yena opystruju Hyntavi poga tromen bube t, umahe irao choje Hyne

Type cy

Hyne came opynierjuje F(x); u via he opynieyuja 1 umandu 3a uspas V = 6 11 (1 - 4 124) ga du viewperny goklasanu vobumo og uspasa F(x) = e (x) T(un) Type je $U_n = \left(1 - \frac{\pi}{dn}\right) e^{\Omega\left(\frac{\pi}{dn}\right)}$ u tye je (2(t) gamo oбpacijem Tipe cheta orebugito je ga he ce y uspasy $\Delta(x)$ jabumu isas apunapitu opanemop Un= (1-w,y)(1-w,y)...(1-w,y) e (w,y)+(2(w,y)+...+(2(w,y)) unu The te 12 partieste page what well Mehytium je uzentiurnen (1-w,y). (1-w,y)... (1-wp+14)=1-42w+422wewi-- y3 E WRWiWj + ... I ypt WIW2 ... Opti

Megyatum trouws cy Wi Wz ... Opti 150 DENN PRINCIPAL PROGRAMMENTE the insperse - ZWR + ZWRWi - ZWRWiWj apegatiabnogy reverpusuemère use dunomité jugitariste, a mi cy koedpurjuentie pabitu Hynu oum tounegnet revu je paban-1, Ta ce Tocnegrou obpasay coogu ma (1-w,y)(1-w,y) ... (1-wp+1y) = 1-yp+1 yorum ang wspas Q(ω,y)+ Q(ω,y)+ ... + Q(ω,y) = (p+1) + y Σω; + + 4 2 E Wi + ... + 4 E Wi Megyaum avuito cy w, wz ··· wp+1 Ropenu Sunonin jegniarunk to je, know mous ce 314a us tilespuje outrom-Hus jegharusta $\Sigma \omega_i = 0$ $\Sigma \omega_i^2 = 0$ $\Sigma \omega_i^3 = 0$... $\Sigma \omega_i^6 = 0$ apenia remy ce godinja

Q(w,y) + Q(w,y) + ... + Q(w,y) = p+1 3 amenon opegitour 6) 47) 45) 1200 u phed 140 mm

apumapitu ce characióp un choque ita $u_n = (1 - \frac{\chi^{p+1}}{\alpha^{p+1}}) e^{p+1}$

Mosnum nord jour nobos

Roju y Laguerre-vooj Romburhaijuju $\Delta(z)$ tw cause $e^{G(\omega_i x) + G(\omega_2 x) + \cdots + G(\omega_{p+i} x)}$

abunto je G(2) yena opynizyuja, to ce multe pasburar y Maclaurin-ubpeg $G(z) = Q_0 + Q_1 X + Q_2 X^2 + \cdots$

ja wood (po coger sy wowie

9) = P(p+1)a0 + a, x & wi + a2 x & wi2+ ... + ap1 2 to Evi+ + ap12 2 & wi4...

Megymum us treopuje bunomnux jegnarunas zita ce ga zoupubu

 $\Sigma W_i^{\text{phi}} \Sigma W_i^{2(\text{phi})} \Sigma W_i^{3(\text{phi})}$

umajy con sa opegnocia pti, a megyiaum che vitiane circiente pasite cy Hyne vianzo ona je

 $\sum w_i = 0$ $\sum w_i^2 = 0$ $\sum w_i^3 = 0$ Üpenia üpme Oδραδιαν 9) Wogu ce Ha

9)= e(p+1)αρ + (p+1)αρ πρ+1 + 2(p+1)α2(p+1) 72(p+1) 4 3(p+1)α2(p+1) + 3(p

Ones way y obpacyama 8) u 9) cirentamo

gobuja ce

$$U_n = \left(1 - \frac{t}{d_n^{p+1}}\right) e^{p+1}$$

9)= e(pri)(a0+apri+ a2(pri) +2+ a2(pri) +3+...)

W.J. 9)= e seria chymrzyuja og t

Upenia chemy voom Laguerre-vouspas axiaje

$$\Delta = e^{\frac{1}{1}(t)} \frac{1}{1} \left(1 - \frac{t}{d_n^{\text{pri}}}\right)$$

Tye and y opynowyuju H(t) ynenu u atanty isonurusty ept us apunapitoi oparatiopa u Tyr je Mel jegita yena opynieguja upomensouble t. Odposous 11) gorensyje û oûtaysto Laguerre-voy theopeny.

Laguerre - voa vierpema unitepecastation je caima ao cepu jegito cauta mão aupeg cheta mora man ce usta gobuja

Uperus itione i uperus ospacy 12) ouhe [A(t)] < 1] (1+ R)

30 che opegitocian t iènze cy ita ièpying. Y Aputamentungu je tiosnatio obarelo jegito tipa buro: Rag je gan jegan nus assumubhux [белграјан ародукат BANDENJAN

a, a, ... am τια οδρασιμјемь παίτρε πιαυρί τευμετεριμίκη chedinan Vajaz··· am

ua samum rousevey apunmenturing chearth

прва је увелг така од уруѓе или ној равна. Према поте неједналина 14) постаје Олго то правиль приненимь на фальторе

goonjace ga je

$$\sqrt{\frac{1}{1000}} \left(1 - \frac{R}{|000|} \right) = \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1000} \right] = 1 + \frac{1}{m} \left[\frac{1}{1000} + \frac{1}{1$$

Type je

gusamen Ha circhen m goonjace

$$\frac{\frac{R \times m}{1}}{\prod_{k \in I} \left(1 + \frac{R}{|\beta_{ik}|}\right)} \leq \left(1 + \frac{R\lambda}{m}\right)^m$$
 14)

ayurumo ang ga m decrepajno paare. Us. pas na reboj apanu obpacija 14) avataje

1 (1+ 12)

Megytanin uspais tha gentoj carpantu alenku Tpa Hugu

а само і претвара се у бескраўни ред

$$\mathcal{M} = \sum_{k=1}^{R_2} \frac{1}{|\beta_k|}$$
 15)

Tropehemen Hejegharutta 16) u 13) goduja ce ga je $| \nabla(f) | < 6_{WK}$

a avinio je

ado momposed noticopos case ajudos so am 1 Hejergharuma

10(F)1 < 6 ms b+1

wa jegita yena chynnelyuja F(x) p-woi poga jegite yene chynnelyuje itynwoi poga sa che U 12 anosturitor tima, sa che tiarise à ma Chegitocità à ma figitore reputy c tronjuper jughome repyty C tronytipernusea & mogyo le manon od nobasa ensulatinis V Herbectianto restantina respo uma sa opegnoui

a The did ... aperguinabrosing you cuivalte thy untirepecantation apabuna o yearum opythe ne opymeryuje 7(2).

2º Uperationatione can qui e opyme $f(x) = a_0 + a_1 x + a_2 x^2 + \cdots$ y uja f(x) opymensuja Hynninot pega. Ologa je sina ce apena Cauchy-ebom obpacusy ga je

Surtumba fedharma

Choque Ha

J=1

Hus Roperta

W, W2 ... Wpt1

Clouge ce tha jugusticity; Laguerr-voa Rombu- oganène je

Harryia D(E) choque ce ma camy opymistry 11) Far. Outyga us manoupehauwer apabuna y evojoj je onuzerto 060 apabuno: 18ag je gra gobujamo iteaschegito obo apabuno: Mogyo Hura & yber to marker of nobasa

Tope je ju jestimantina jesja uma za Epegitoan

Obo apabuno gubogu u go gpytus yujama Hynuivi poga. aneo ce yena opyrne ujuja F(z) pasbuje y Marenopertub peg f(x) = 00 + 01x + 02x2+ ...

 $a_n = \frac{1}{2 \sqrt{1} L} \int \frac{f(x)}{x^{n+1}} dx$

Tope je ustrietpan your gygk ma reaselut repy-Τα υπικατιοί υπο που επίπα. Απο σε νου интетрацију узме перуг с топупретника it where morning x= 7.000

dx= zi eoi do= ziz do

Upenia trone umahemo

 $Q_{n} = \frac{1}{2\pi} \left(\frac{f(x)}{2\pi} e^{-(n+1)\Theta i} d\theta \right)$

Прета познатот правину за тодуне

univerpana outre $|a_n| < \frac{1}{2 ||e^n|} \int_{1}^{2 ||e^{(n)|}|} ||e^{(n)|}| ||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}||e^{(n)|}$

a avimur je

| e(n+1)(0) |=1

a [F(2)] apema manoapefambem apabuny byge mushunym. Wa ce opyrrzywja molite Hatu-Je maron og ene, the trochegrer Hejergharus cather y vonting Ha waraje

 $|a_n| < \frac{e^{\mu z}}{2\pi 2^n} \int_{a}^{2\pi} d\theta = \frac{e^{\mu z}}{2^n}$

unu

|an|< en

Пошто зе сруньщија Е(г) цена, данене нема y yenoj pabitu custignapuniena, invite ce za Rpyt ustnetpayaje ysentu Rpyt ca 12012bun ce suhe trongriperhussom? Utra buye monte ce your sa cleaner an appylu trongaper HUR & a tromition MUHEMO thanks pactionatous

car, in ta morkemo usaspanta viarro ga gentra importra Itejenziare 18) Ogize mino je muzyhe manoa. Ozebugito je ga y ronuro le otra maria, à mormes le topura Dannia Roechuyuestina an gama HejergHarustom 18) aperjusticija. Tompasjamo garene nareby bpegitoui upeda ga yomeno sa a aa ga chystreyuja

Well appear uslog to 2 Suhe $(M-\frac{n}{2})e^{Mz-newgz}$ 20)

a wen apytu wolog ouhe

 $\left[\left(M-\frac{n}{5}\right)^{2}+\frac{n}{3}\right]^{2}$ 21)

audum me ga je palan itynu uplu uslag 20) gobuja ce jegnarusta

M- 2 =0

oganene je

7= n

ECHCER TGE IL OSHORYSE TOPE GEOPUHUCOMY
ROHOTIONING OF BOOMHUCOMY MORROPENTOUM
PEGOIN

2 2 23 24

 $\Theta(x) = 1 + \frac{x}{1} + \frac{x^2}{4} + \frac{x^3}{27} + \frac{x^4}{256} + \cdots$

3° Herea je cag ganta jegiha chyhryuja F(x) p-twot pogra u Herea je $\Delta(t) = F(\omega_1 x) \cdot F(\omega_2 x) \cdot \cdot \cdot \cdot F(\omega_{ph} x)$ 24) daguerre -voa revindum aujuja revja juj vgtubapa, Tge je $t = \chi^{p+1}$

Bugenu emo ga je st) urbecha yena chystreyuja apoinembube t yber Hynare bpate; arare una bugenu emo aog 1º ga je sa che opene goir ce 2 repehe ao repyty c reapenations

10(f)1 < 6ms pt1

(panuja Hejergharuna 17). Tycarumo garene ga ce a repetre ao repyty C; sa ao he lopeme opymenja F(a) mapearanto menoana choj mogyo reve he apetru og jegete majbe-

he go jegte Hajmanoe opegitocitu Ositasumo ca M(x) Itajimanou mogyo isoju gobuja opystrujuja F(x) tipu tiome repetitomy tipomensobe z. Oo camoj geopustuujuju obor mogyna Suhe

N(2) = 17(2)1

The meating ce Harrasuru & Ha talome 12/pg.
Ty C. Unew yorknow Epergholial
West Wax ... West.

commo je y oùmine $|\omega_R x| = |\omega_R|/|x|$

n goniges be

1=10 W

twije

100221=121

mito staru ga ragtog ce & Harasu Ha Repyty C yber ce u tarrea Wet Harasu Ha thom uctiom repyty u tema tome to camoj geopushuyaju mogyna M(x) ouhe

 $\mathcal{N}(x) \leq |\mathcal{F}(w,x)|$ $\mathcal{N}(x) \leq |\mathcal{F}(w,x)|$

25)

M(x) = 19 (wp+12)1

Tourto cy chu racholu y Hejegharuhama 25) TOZUTULOHU, CMEMO TIE HEJEGHOSLUHE mely cosom itomhoration, in je $[N(x)]^{p+1} \leq |\mathcal{F}(\omega, x)| \cdot |\mathcal{F}(\omega, x)| \cdot \cdot \cdot |\mathcal{F}(\omega_{p+1} x)|$

uru

 $|\mathcal{N}(x)|^{p} \leq |\Delta(t)|$

a homin com partuje tog 1º bugenu ga 30 che opene gor ce 2 repetre to reputy c Heripecialisto je

 $|\nabla(f)| < G_{\text{MS}_{\text{lot}}}$

The ce Hejerghoreupa 26) Choque Har [M(x)]phi & euzhille Har

oganene ce guoluja

y temy je onuresto obo apabuno: Hajmanou mogyo revju goduja jegita yena opymeyuja 3(x) poga p 3a opene goir ce x ièpehe to jughome 12 pyty other with 0120 2=0 ca tury therewas a good is maken on wspusa

Tge je ju usbecita izoHcitianuta izoja uma pa- apema tuome je Huje Haberty opegitocii

M= E Idalphi arge cy d, d, ... you autoute thyre came opymerquie F(x). H. Up. Herea je ganta opymeryuja F(2) = m2

26) ruje cy Hyne

dn=nI

3a my je

apenia remy je $M = \sum_{n \in \mathbb{N}} \frac{1}{n!!} = \frac{1}{1!!} \sum_{n \in \mathbb{N}} \frac{1}{n!}$ Megyinum 3140 ce gia ge $\frac{11^2}{5}$

27) u apenia avme je M= 1 = 1

Wo du dure i com in consu og a cost aubhux Hyna

· Vainy du speghour umanu u 300 11200aubik ityne nil aunen ga je

 $N(x) < e^{\frac{1}{3} \cdot \frac{1}{2} \cdot z^2} = e^{\frac{z^2}{6}}$

прета тоте тинитапни тодую функ

F(2) m2

30 bpeme gor ce a repetre to repyty trong-

Gerayuje usmehy Hyra yerur chyhryuja u Hyra Hurabux usboga

Bugenu uno y viewpuju aniedapcieux jegitarinta ga 3à noux opegu Poneoba weopenia uneasonta y obom obrusy: 1º usmeby goe y sacribulte permite theme Jegitota ionutionia mopa restante dap jegita peanta Hyna Heavboi usboga; 2° usineby goe yourmoute perante ityre usbogus jegitora ao nutoma monte nestaun Hojoune jegha Hyna aonustoma. Upu whorzerry voe viewpens sa uniedap. are jegharme this apeganamanner Humina apyto go camo isortinhyan-HOUTE (HETPERRUGIFOUTE) TORUSTOMIS TOWITS je donna izena chymnetzuja napanetaepu cranta themse with Henra Henricansbur tipe-· Buga, decrepajitoune una itainux crevRUGA TI. j. TULLITO JE COLARIA OG HOLLA 1804ray Hyanita, an je orebugito ga Poneuba шебрета поштуть важи и за свину yeny opythayyy y arom arenegy aroution avaityte attanoity a usmetry avnutoma u yenux opymeyya.

Megyttur uma gpytur ocobusta Hypra revie reaparettepung avrumome a 120je He biaske 30 ma rearrby yeary opystremying thanks It ap 31ta ce go many my we Hyre jugitor adrustoma pearite, ortigary u che styne netobot usboga mareobe peanite i obphymo. The works was iteauchergina abcneguna Poneuse viewperne 3a avrunome. Wares ares cy

Itype wobogite jegharuste, sita ce ga je Poners Hus -00 G G C ... R +00

u on ce cacialyu us n ysacialvanux pars- Roja uma cheta fegity Hyny marea are to n execuent jegnarunte thous as oglobapajyhu armite ma- u ota je peanta. Metymum wet usbog the come vitoriures peantus thena restruct fe

120 y voum Poneobom Husy uma apome-THE SHEARE MYTHE US REDA HE GENTO, TO, are Tonevo Hus Huje availyH a.j. ano Hema n pasmarea, He muzy mu che Hyne TORUHOINA SUTU peanite. Us table ce bugui gra ce 1209 twomen the monte gecum ya cy che styre usboga umatu. Hapite a che Itype como Tonunoma peanite. Megyanin namo ce ybepuan us TO JUST WHERE THE GO TO GO THE louseu sa yene opystrzujuje y vanutie. Na-Roje H. ap chopmupante beoma apoute yere opijstremuje rease umajų vay ocoolusty ga cy um che nyne noux vooi usboga umaturtapite a medyatum ga cy che ityre come opyrtreguje pérante. Hajapounuju apunep majbé opure oura du yera chimish min

 $\mathcal{F}(x) = (x+1)e^{x}$

 $\exists'(x)=[(x+1)2x+1]e^{x^2}=(2x^2+2x+1)e^{x^2}$ U OH TOCITAJE paban Hynu 30 OHE Expegito-व्याप द अव स्थित है 222+22+1=0

a vie cy bpegitocina $\chi = -\frac{1}{2}(1\pm i)$

-garre coe cy Hyre usboga umatu-Hapite a che aj itype came apyrneujuje peante Mareo unio areo gorumo bainitially openionally

 $f(x) = (x + \alpha) e^{mx^2 + nx}$ OHA UMA ROW JUGHY HYNY

u otta je peranta Mebyraum wen usbog vasta ascinoje vitivis gbe odunie isnace $f'(z) = \left[(z+\alpha)(2mz+n) + 1 \right] e^{mz^2 + nz} =$

 $= [2mx^2 + (n+2\omega m)x + \omega n + 1]e^{mx^2 + nx}$ un cutaje paban Hynu sa vité opegnour qua ano cy che Hyne came opynienjuje La 300 Roje je

2m22 + (n+2am) 2 + un+1=0 Te y ryre garere +1 (n+20m /2 an+1) parer y cay rentationate a, m un airrebe ga je uvurropita konurusta itetaniubita ti.j. ga je

(n+20m)2-8m (an+1) < 0 ose y spegitour La unisturiapire u apena inome Topnoa opynszyuja umara Si my ocodusty gra cy weste type che peante, a medijulum che cy myne meito wsboga unaturapire

We obuse apositive apunepa beh Le bugu gra 120g yenux pytheyya mo-The Hacingamin chyria go in the my-The usbogia unaturapité a che nyne come opyineuje peante appeg were yerux opynteguja revje ce y voum tomegy whaving waity to isas tone-Home a.j. 120g ierjua baska apabuno peanite, impayy u de ityre usbogite apyrtiensuje dumi perante ti.j. usbog ite misite umautu y tuom crysajy umatu Hapte Hyne. We goe knace opyrtheyya

y voe:

To knaca: Che yene opymeryuje Hyntavi poga a ranohuritor taura ta.j. che yene opymeryuje obnura $\frac{1}{4}(x) = \prod (1 - \frac{1}{4\pi})$

20 PERIOCA: Che yene opyrtheyuje aphot pogia a reathorturitur ania a.j. opyrtheyuje obrusea

 $\mathfrak{F}(x) = \prod \left[\left(1 - \frac{x}{dn} \right) e^{\frac{x}{dn}} \right]$

Mu hemo gorasonio sa use goe opciae chymeyyia ga ako cy che nouxube ityne an peanite, oitga u nouxub usbug F(x) ite moitte umania umanatutapite thyne. Ga bu ino gorasonu chopmupajmo us usux opegitociau usbug came chymreyyie F(x) i upe cheta umahemo sa upby opciay chymeyyia

 $\log f(x) = \sum \log \left(1 - \frac{x}{dn}\right) = \sum \log \frac{1}{dn} (dn - x)$

ogarère je guspepernjujarerben

1(2) = 5 = 1 = 5 = 27-dn

30 gpyty 12nacy chystrycya umahemo log f(2) = [log(1-2n) + 2n] = [log(4-2n) + 2n]

ogaisne guchepenigupariem

 $\frac{\Im(\chi)}{\Im(\chi)} = \sum_{n} \left(\frac{1}{\chi - d_n} + \frac{1}{d_n} \right)$

Tomohy obpacya 1) ogitocito 2) moine ce cay goisasant ga ano cy che ityne a, a, a, a,

peanite, usbog F(x) He monte umaute itellegity umaturaphy Hyry the hemo governo governo go uspas 3 autu are bygeno governo go uspas F'(a+6i)

He monte buien paban nyon was tog jeb pasnurumo og Hyne. The trans buien gokasano anso gorrantemo ga uspas

F'(a+6i)
F (a+6i)

HE MUTHE SWITCH POLICH HYPLL 1200 TOU JE 6 pas nuruin og Hype Ga bu tio gotea-3anu cmenumo y obpacyuma 1) u 2) 7=0+6i

tra ce gubuja us obpación is

3) $\frac{\Im(\alpha+6i)}{\Im(\alpha+6i)} = \sum \frac{1}{\alpha+6i-dn} = \sum \frac{\alpha-6i-dn}{(\alpha-dn)^2+6^2} = \sum \frac{\alpha-dn}{(\alpha-dn)^2+6^2} - 6i\sum \frac{1}{(\alpha-dn)^2+6^2}$

a wo oppación si

4) $\frac{\mathcal{F}(\alpha+6i)}{\mathcal{F}(\alpha+6i)} = \sum \left(\frac{1}{\alpha+6i-dn} + \frac{1}{dn}\right) = \sum \left[\frac{\alpha-6dn}{(\alpha-dn)^2+6^2} + \frac{1}{dn}\right] - 6i\sum \left[\frac{1}{(\alpha-dn)^2+6^2}\right]$

ga ou gette apparte obpasaya 3) 44) motre out of gette Hyru, toutpeolito je ga tionato con o oygy pabitu Hyru pearitu u umatuhapitu gerubu. Touto cy a, bu an coupearitu, to he tipbe cyme ita gettoj tipartu tipegatiabnoutu pearan a gpyte cyme ita gettoj cupatu umatuhapite gerube, a $\sum_{(a-dn)^2+6^2}$

HE MUHE HURRING SUM PASHO HYRU, UTO

OPPYTE CYME Y OSPORCYUMA 3) UH MOTY CAMO WARD SUM PASHE HYRU, OND JE 6=0

UNTO HURRING HE MUHE SUM OND CY HYRE

OF UMATURAPHE WINDE JE GORDONA HYRO

WY OB USE GOE BRUCE CPYNICYUJA O BOJUMA JE PER UMAJY U Y WOM WOTREGY UCTE

OWSCUTE HASEGENU USYSEYU BOD WWD CY

OPYNICYUJE

OPYN

3(x)=(x+1) ex

E(x) = (x+0) 6 mx2+2x

ार केंग्रामाराम्यांत.

UM