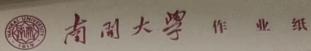
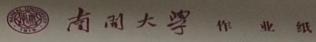


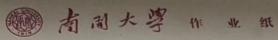
1.试指导极生极种柯西一黎曼方程 额、从一部部中城中 SX = X = cosq SX = X + y = cosq SY = x + y = x = x = cosq SY = x + y = x = cosq S cosq. ay - p sing by = sing by + p (osq by 1) sing \$ + \$ cosp \$ = - (05 \$ \$ + \$ sing \$ = 2)



11)某个区域上解析函数如为实函数,试证它外部数 ig w(z)= u(x,y)+iv(x,y) : 实改数 : iV(x,y)=0 肉村西黎新社 类一兴二〇 改二一兴二〇 . 以公为字数 即该解析函数从为常数 2.12) = ex(x(oxy+(oxy-yshy)= by) - = ex(xsiny+siny+ycosy)= = x · V=ex(xsiny+ y cosy)+C t(2)= ex(xcosy-ysiny) tiex(xsinytycosy)+iC = Xe (*cay+isiny) - eig (siny-icosy) tic =xex=.eiy + @iyexeiy+ic = extig(xtry)+ic. -- 't(0)= i C=0 : C=0 · +(z)=zez 7.(3) $\frac{3V}{3X} = -\frac{3V}{3Y} = \frac{4 \sin x(e^{2x} - e^{-2y})}{(e^{xy} + e^{-2y} - 2(\cos x))^2}$ $\frac{\partial y}{\partial y} = \frac{\partial y}{\partial x} = \frac{4\cos x(e^{2x} + e^{-2y} - 2\cos x) - 8\sin^2 x}{(e^{2x} + e^{-2y} - 2\cos x)^2}$ $dv = \frac{4 \sin 2x (e^{2y} + e^{-2y}) dx + 4 \tilde{c} (e^{2y} + e^{-2y}) - 2 dy}{(e^{2y} + e^{-2y} - 2 \cos 2x)^2}$ V= - \frac{e^{2y} - e^{-2y}}{e^{2y} + e^{-2y} 2000}, \frac{e^{-1}(2)}{e^{2y}} = 0. \frac{(2)}{e^{2y}} f(z)=utiv= 251x-i(e24=24) = ctg=



2045 2: V= = sing 利用 30 = p 1 30= 1 cosp - lav = - av = pr sing U= - 1 cospt C +(7)= - (-losptising)+($= \frac{1}{6}e^{-i\phi} + c = -\frac{1}{2} + c$ $f(z) = 0 : c = \frac{1}{2}$ $f(z) = \frac{1}{2} - \frac{1}{2}$ (18) $\frac{34}{6x} = 3x^2 + 12xy - 3y^2 = \frac{3y}{6y}$ - & v = -6x2+6xy+6y= &x :. V=-Zx3+3x2y+6xy2-y3+C +(x): x3+6x2y-xy3-2y3+i(-2x3+2x2y+6xy3-y3)+iC F(z)= lip +ip+i C= lnz +iC Z: +li)=0 : f(z)=|n2



 $| \frac{1}{\sqrt{2}} | \frac$