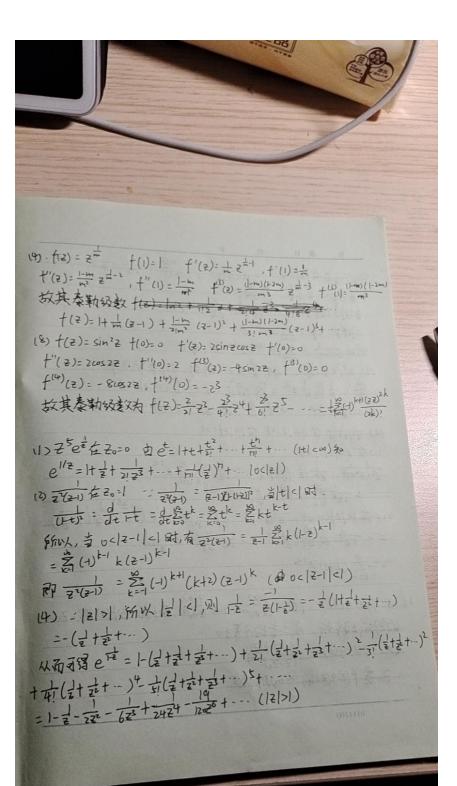
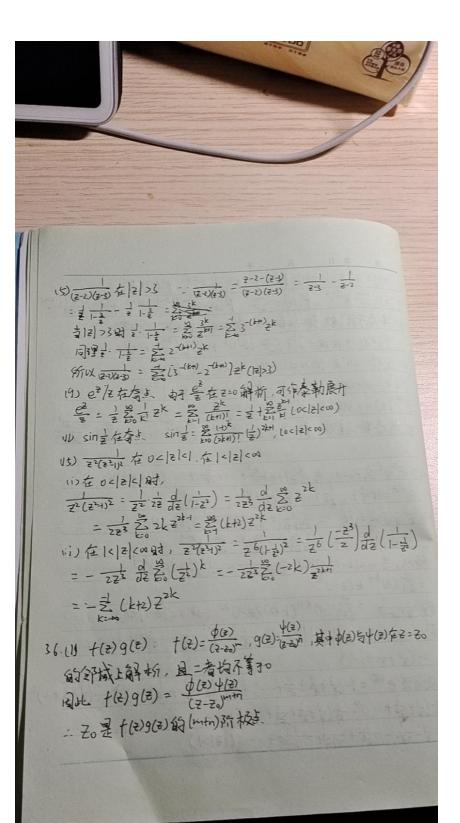


的智以是水 から k! (k) (k+1) k+1 = limit k+1 (k+1) k+1 = lim (k+1) k

V文文学会: R= lim (k+1) k

K* = limit k+1 (k+1) =lim (1+元)k=e,所以收敛国是闰=e (5) & kk (2-3)k 收敛*程: R=lim 1 = lim 1 = lim 1 = 0 4.10 苦凡《凡,则阳凡内部之及弘益之及之都绝对收敛。从而 器(aktbe)zk绝对收敛,以收敛料之min[Ri, Ri] 10 艺(OK-bK)ZK 若 RI ERZ 则阳=RI内瓷-bkzk闪转收数 结论与上数相同,收敛轻》mincRi,Ri] 13) $\underset{k \neq 0}{\text{2}} \frac{a_k b_k z^k}{b_k z^k} = \underset{k \neq 0}{\text{lim}} \frac{a_k b_k}{a_{k+1} b_{k+1}} = \underset{k \neq 0}{\text{lim}} \frac{a_k}{a_{k+1}} \frac{b_k c}{b_{k+1}} = \underset{k \neq 0}{\text{R}_1}$ 14) $\underset{k \neq 0}{\text{2}} \frac{a_k z^k}{b_k z^k} = \underset{k \neq 0}{\text{lim}} \frac{a_k b_k}{a_{k+1} b_{k+1}} = \underset{k \neq 0}{\text{lim}} \frac{a_k a_{k+1}}{b_k b_{k+1}} = \underset{k \neq 0}{\text{R}_2}$ 11) arctgz在30=0 今 f(7)=arctg2,则 f(z)=arctgz, f(0)=0 $f'(z) = \frac{1}{Hz^2}$ $f''(z) = \frac{-28}{(Hz^2)^2}$ f''(0) = 0 $f^{(3)}(z) = \frac{(z^2-2)}{(Hz^2)^3}$ $f^{(3)}(0) = -2$ (3) $f(z) = \ln z$, $f(i) = \ln i$ $f'(z) = \frac{1}{2}$ $f'(i) = \frac{1}{2}$ $f''(z) = -\frac{1}{2^2}$, $f''(i) = -\frac{1}{2^2}$ $f'''(z) = \frac{2}{2^3}$; $f^{(3)}(i) = \frac{1}{i^3}$ ·· f(z)= lni+ +(z-i) - = = (z-i)3+ = = (z-i)3+ ...





13) f(z)+g(z)13上盤设 $f(z)=\frac{\phi(z)}{(z-z_0)^m}$, $g(z)=\frac{\psi(z)}{(z-z_0)^n}$ - $f(z)+g(z)=\frac{\phi(z)}{(z-z_0)^m}+\frac{\psi(z)}{(z-z_0)^m}$

之。是flatger的极点,其所数为m和nx较大的一个如m=n,则极点的阶数可能于m