Panel 1

Private Freehand 1

Complex HW #23

Evaluate the integrals

a) $\displaystyle\int_C \frac{3z^3+2}{(z-1)(z^2+4)}\, dz$,   for $C: |z-2|=2$ and $C: |z|=4$

b) $\displaystyle\int_C \frac{dz}{z^2(z+4)}$,   for $C: |z|=2$ and $C: |z+2|=3$

c) $\displaystyle\int_C \frac{z^3 e^{1/z}}{1+z^3}\, dz$,   for $C: |z|=3$

d) $\displaystyle\int_0^{2\pi} \frac{4}{3+2\cdot\sin(t)}\, dt$