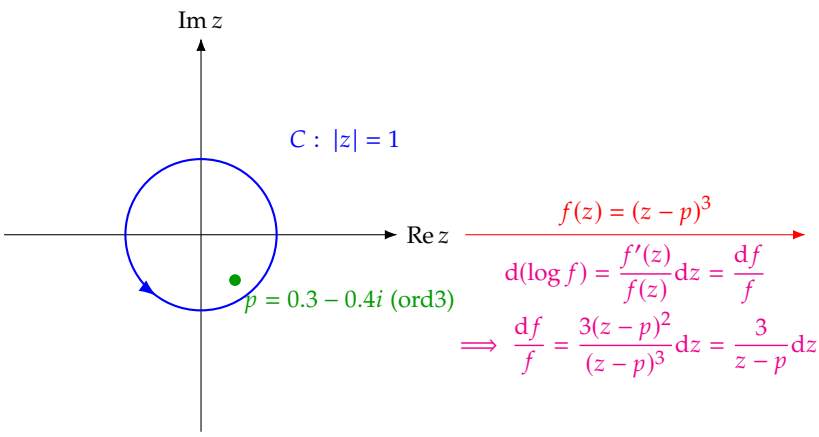

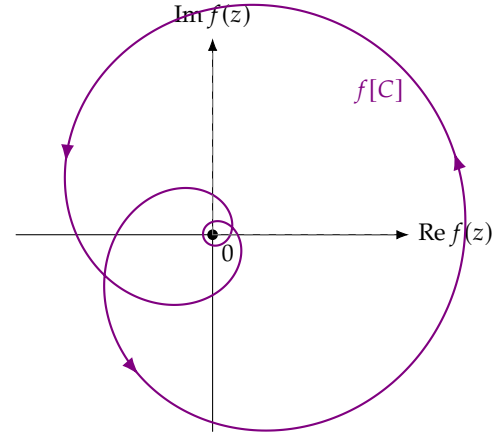

[Degree]

$$\oint_C \mathrm{d}(\log f) = \oint_C \frac{\mathrm{d}f}{f} = 3\oint_C \frac{1}{z-p}\,\mathrm{d}z$$

$$\xrightarrow[t\in[0,2\pi]]{z=p+e^{it}} 3\oint_{[0,2\pi]} \left(e^{-it}\right)\left(ie^{it}\,\mathrm{d}t\right) = 3i\oint_{[0,2\pi]} 1\;dt = 2\pi i\cdot 3$$