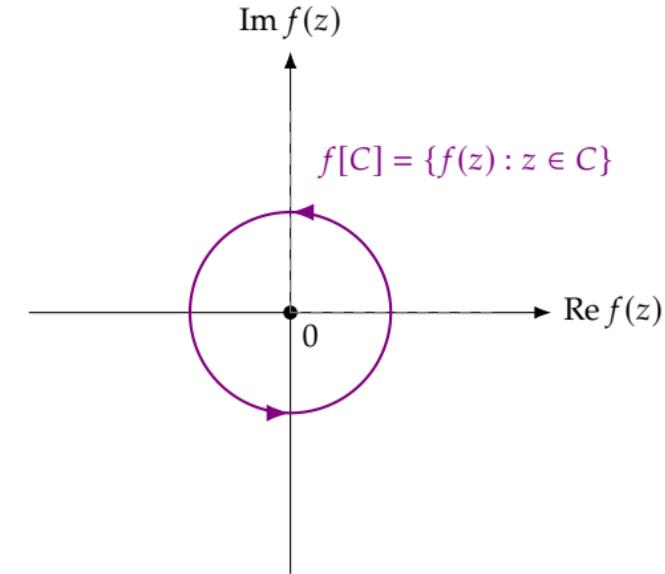


$$\begin{aligned}
 f(z) &= z^1 \\
 d(\log f) &= \frac{f'(z)}{f(z)} dz = \frac{df}{f} \\
 \Rightarrow \frac{df}{f} &= \frac{1}{z} dz
 \end{aligned}$$

z -plane



$f(z)$ -plane

[Degree]

$$\begin{aligned}
 \oint_C d(\log f) &= \oint_C \frac{df}{f} = \oint_C \frac{1}{z} dz \\
 \xrightarrow[t \in [0, 2\pi], z = e^{it}]{} & \oint_{[0, 2\pi]} \left(e^{-it} \right) \left(ie^{it} dt \right) = i \oint_{[0, 2\pi]} 1 dt = 2\pi i \cdot 1
 \end{aligned}$$