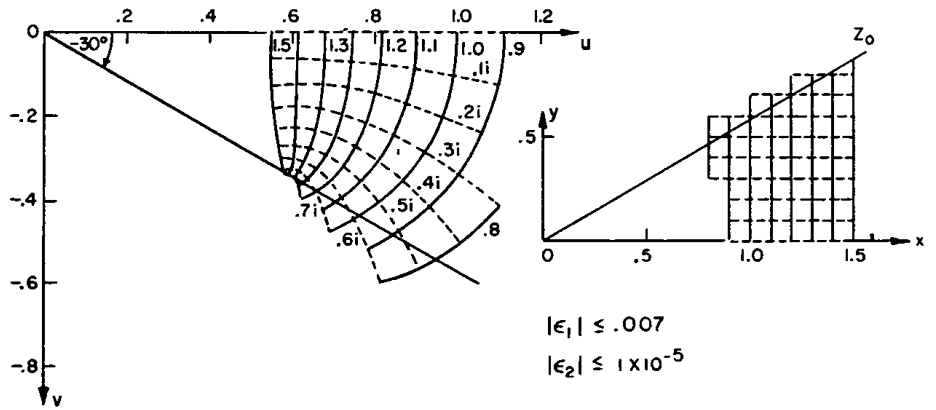


$\mathcal{P}'(z)$

Near zero: $\mathcal{P}'(z) = \frac{-2}{z^3} + \epsilon_1$

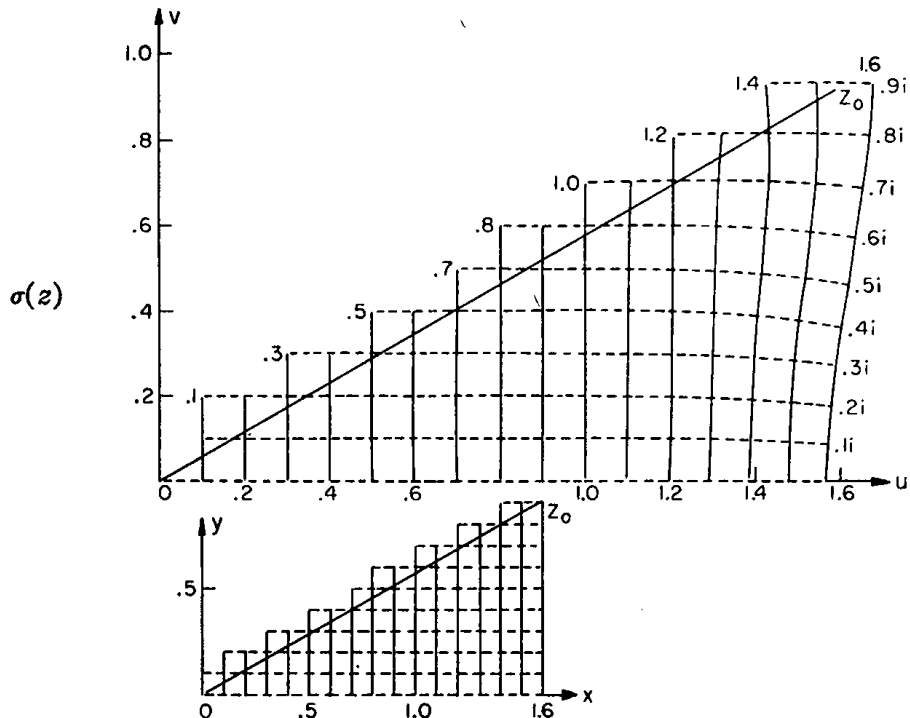
$\mathcal{P}'(z) = \frac{-2}{z^3} + \frac{z^3}{7} + \epsilon_2$



$\zeta(z)$

Near zero: $\zeta(z) = \frac{1}{z} + \epsilon_1$

$\zeta(z) = \frac{1}{z} - \frac{z^5}{140} + \epsilon_2$



$\sigma(z)$

FIGURE 18.12