



$$t = R_o - R_i$$

$$\frac{t}{R_i} = \frac{R_o}{R_i} - 1$$

$$R_o/R_i = 1 + t/R_i$$

$$\ln(R_o/R_i) = \ln\left(1 + \frac{t}{R_i}\right) \cong \frac{t}{R_i} \quad \text{if } t \ll R_i$$