$\mathbf{Log_{10}}$ Review

- $\log_{10}(1) = 0$
- $\log_{10}(10) = 1$
- $\log_{10}(100) = 2$
- $\log_{10}(1{,}000) = 3$
- $\log_{10}(10{,}000{,}000{,}000) = 10$

$\beta = (10\ \text{dB}) \log_{10} (I / I_0)$

$\beta_2 - \beta_1 = (10\ \text{dB}) \log_{10}(I_2/I_1)$

- $\log(ab) = \log(a) + \log(b)$
- $\log_{10}(100) = \log_{10}(10) + \log_{10}(10) = 2$