Homework 8 b)

ii) How do you give bit error probability in (one tap) Rayleigh channel?

$$P_b = \int_0^\infty p(\gamma) P_b(\gamma) d\gamma$$

$$= \int_0^\infty \frac{\exp(-\gamma/\gamma_o)}{\gamma_o} \cdot Q\left(\sqrt{k\gamma}\right) d\gamma = \frac{1}{2}\left[1 - \sqrt{\frac{k\gamma_o}{2+k\gamma_o}}\right]$$

Compare again the sensitivity levels for GMSK and 8PSK.