

1. a Plot of  $p(x|\theta)$

$$p(x|\theta = 1) = e^{-x} \quad x \geq 0 \quad (1)$$

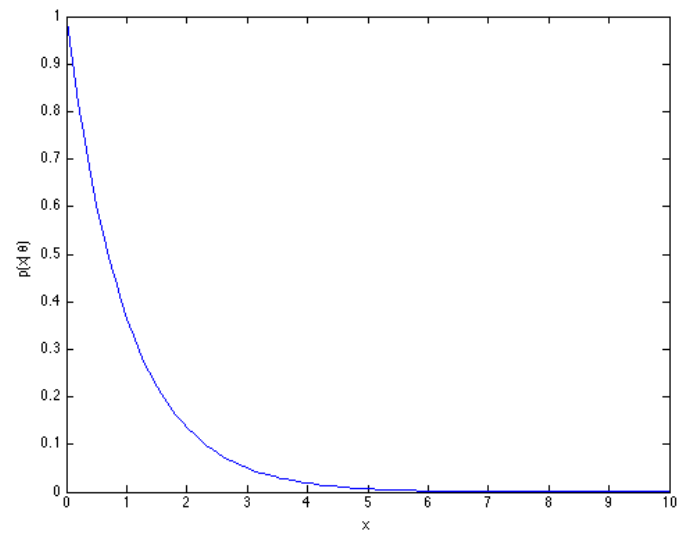


Figure 1:  $p(x|\theta) = e^{-x}$

$$p(x = 2|\theta) = \theta e^{-2\theta} \quad (2)$$

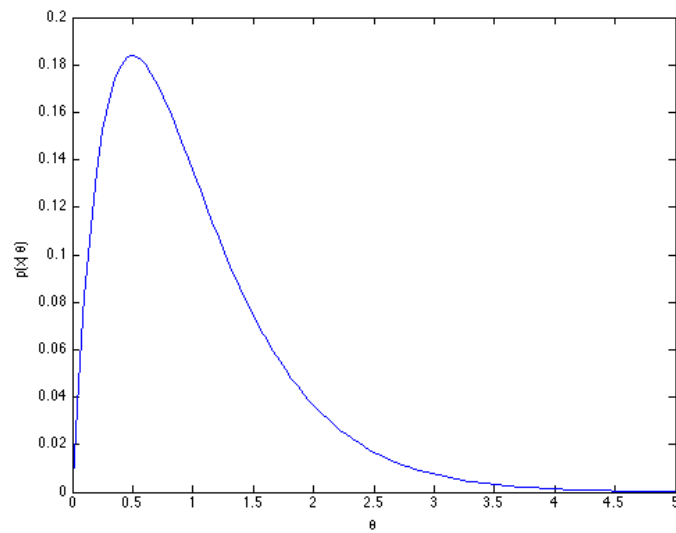


Figure 2:  $p(x|\theta) = \theta e^{-2\theta} \quad ; 0 \leq \theta \leq 5$