2. Suppose you classify a sample x using the MAP rule.
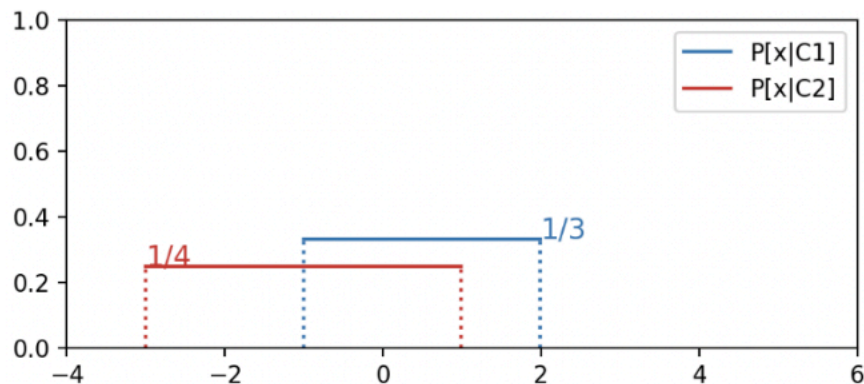
MAP rule:
$$\mathcal{K}^* = \arg\max_k P[C_k|x] \propto P[x|C_k]P[x]$$

2.1 Classify the sample $x = 0$ when $P[C_0] = P[C_1] = \dfrac{1}{2}$. Use the two conditional densities above.

- $\mathcal{K}^* = ?$