

a1	a2	Classe
1	0	C1
0	0	C1
2	1	C2
1	2	C2
0	1	C1

$$P(C1) = \frac{3}{5}$$

$$P(C2) = \frac{2}{5}$$

$$P(a1=0/C1) = \frac{2}{3}$$

$$P(a1=1/C1) = \frac{1}{3}$$

$$P(a1=2/C1) = 0$$

$$P(a2=0/C1) = \frac{2}{3}$$

$$P(a2=1/C1) = \frac{1}{3}$$

$$P(a2=2/C1) = 0$$

$$P(a1=0/C2) = 0$$

$$P(a1=1/C2) = \frac{1}{2}$$

$$P(a1=2/C2) = \frac{1}{2}$$

$$P(a2=0/C2) = 0$$

$$P(a2=1/C2) = \frac{1}{2}$$

$$P(a2=2/C2) = \frac{1}{2}$$

$$X = [a1, a2] = [1, 0]$$

$$P(a1=1/C1) = \frac{1}{3}$$

$$P(a1=1/C2) = \frac{1}{2}$$

$$P(a2=0/C1) = \frac{2}{3}$$

$$P(a2=0/C2) = 0$$

$$P(X|C1) = P(a1=1/C1) \times P(a2=0/C1) = \frac{1}{3} \times \frac{2}{3} = \frac{2}{9}$$

$$P(X|C2) = P(a1=1/C2) \times P(a2=0/C2) = \frac{1}{2} \times 0 = 0$$

$$P(C1|X) \sim P(X|C1)P(C1) = \frac{2}{9} \times \frac{3}{5} = \frac{6}{45} \sim 0.133$$

$$P(C2|X) \sim P(X|C2)P(C2) = 0 \times \frac{2}{5} = 0$$

Como $P(C1|X)$ é maior, então a classe da instância X é C1.