

Quiz 9

3 Best splitting Point

13	Y
6	w
7	Y
8	w
9	Y

$$\text{info}(m) = 0$$

$$\text{info}(A_1) = -\frac{3}{4} \log_2 \left(\frac{3}{4}\right) = \frac{1}{4} \log_2 \left(\frac{1}{2}\right)$$

$$\therefore \left(\frac{1}{5} \times 6\right) + \left(\frac{4}{5} \times 0.811\right) = 0.694$$

$$\begin{aligned} 3 \quad \text{info}(A_1) &= -\frac{1}{3} \log_2 \left(\frac{1}{2}\right) - \frac{2}{3} \log_2 \left(\frac{2}{3}\right) \\ &= 0.918 \end{aligned}$$

$$\text{info}(A_2) = 0$$

$$\left(\frac{1}{5} \times 0.918\right) + \left(\frac{2}{5} \times 0\right) = 0.557$$