

Quiz 9.

1109

$$\text{info}(D) = I(2,3) = 0.971$$

1109

$$\text{info}_{\text{1109}}(D) = \frac{1}{5} I(1,0) + \frac{4}{5} I(3,1)$$

$$= \frac{1}{5} \left( -\frac{1}{1} \log \frac{1}{1} - \frac{0}{1} \log \frac{0}{1} \right) + \frac{4}{5} \left( -\frac{3}{4} \log \frac{3}{4} - \frac{1}{4} \log \frac{1}{4} \right)$$

$$= 0 + 0.649$$

$$= 0.649$$

$$\text{Gain}(1109) = 0.971 - 0.649 =$$

ba507

$$\text{info}(D) = I(2,3) = 0.971$$

1109

$$\text{info}(D) = \frac{3}{5} I(1,2) + \frac{2}{5} I(2,0)$$

$$= \frac{3}{5} \left( -\frac{1}{3} \log \frac{1}{3} - \frac{2}{3} \log \frac{2}{3} \right) +$$

$$\frac{2}{5} \left( -\frac{2}{2} \log \frac{2}{2} - \frac{0}{2} \log \frac{0}{2} \right)$$

$$= 0.551$$

$$\text{Gain}(1109) = 0.971 - 0.649 =$$