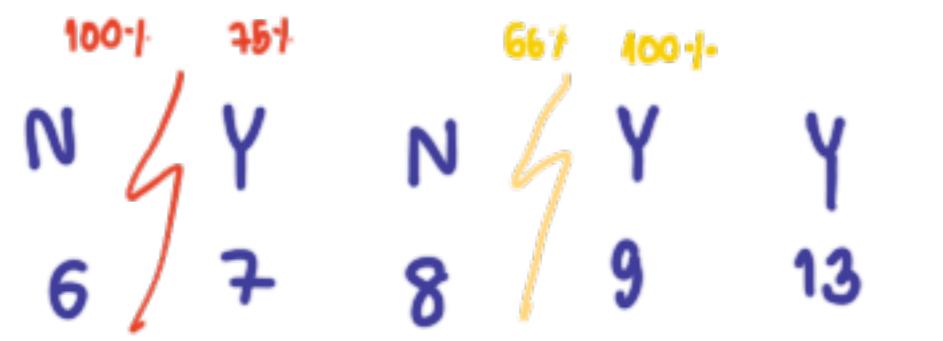


Quiz 9: info 3≡3

R

6	No
7	Yes
8	No
9	Yes
13	Yes



$$Info_{age}(D) = \frac{5}{14} I(2,3) + \frac{4}{14} I(4,0)$$

$$+ \frac{5}{14} I(3,2) = 0.694$$

$-\frac{x}{4} \log \frac{x}{4} = \frac{0}{4} \log \frac{0}{4}$

$$Info(D) = -\sum_{i=1}^m p_i \log_2(p_i)$$

needed (after using A to split D into v partitions) to classify D:

$$Info_A(D) = \sum_{j=1}^v \frac{|D_j|}{|D|} \times Info(D_j)$$

gained by branching on attribute A

$$Gain(A) = Info(D) - Info_A(D)$$

Sol. $Info(D) = -\frac{1}{5} I(9,1) + \frac{2}{5} I(8,2) +$

$Info_A(D) =$