

input < Age 31-40, income = high, stu = yes, credit\_rating = fair >

$$P(C_i) : P(\text{buys\_computer} = \text{"yes"}) = 9/14 = 0.643$$

$$P(\text{buys\_computer} = \text{"no"}) = 5/14 = 0.357$$

Computer  $P(X|C_i)$  for each class

$$P(\text{age} = 31-40 \mid \text{buys\_computer} = \text{yes}) = 4/9 = 0.44 + 1 = 1.44$$

$$P(\text{age} = 31-40 \mid \text{buys\_computer} = \text{no}) = 0 + 1 = 1$$

$$P(\text{income} = \text{high} \mid \text{buys\_computer} = \text{yes}) = 2/9 = 0.22 + 1 = 1.22$$

$$P(\text{income} = \text{high} \mid \text{buys\_computer} = \text{no}) = 2/5 = 0.4 + 1 = 1.4$$

$$P(\text{stu} = \text{yes} \mid \text{buys\_computer} = \text{yes}) = 5/9 = 0.56 + 1 = 1.56$$

$$P(\text{stu} = \text{yes} \mid \text{buys\_computer} = \text{no}) = 1/5 = 0.2 + 1 = 1.2$$

$$P(\text{credit\_rating} = \text{fair} \mid \text{buys\_computer} = \text{yes}) = 6/9 = 0.67 + 1 = 1.67$$

$$P(\text{credit\_rating} = \text{fair} \mid \text{buys\_computer} = \text{no}) = 2/5 = 0.4 + 1 = 1.4$$

$$P(X|C_i) : P(X \mid \text{buys\_computer} = \text{yes}) = 1.44 \times 1.22 \times 1.56 \times 1.67 = 4.58$$

$$P(X \mid \text{buys\_computer} = \text{no}) = 1 \times 1.4 \times 1.2 \times 1.4 = 2.35$$

$$\text{buy} = \text{yes} = 4.58 \times 0.643 = 2.94$$

$$\text{no} = 2.35 \times 0.357 = 0.84$$

$\therefore$  เลือก #