CS685A

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NAIVE BAYES

assumed all attributes are independent.

~~P(M | yellow, medium) =~~

Likelihood:

P(yellow, medium | M) =

$= P(\text{yellow} | M) \cdot P(\text{medium} | M) \cdot P(M)$

$= \frac{6}{6} \cdot \frac{2}{6} \cdot \frac{8}{14} = \frac{4}{21}$

P(yellow, med | O)

$= P(\text{yellow} | O)\, P(\text{med} | O)\, P(O)$

$= 0$

∴ given fruit is Mango as it has more likelihood.