A and B are independent events. P(A) = 0.3 and P(B) = 0.4

a) Find $P(A' \cap B')$

b) Hence find P(A'|B')

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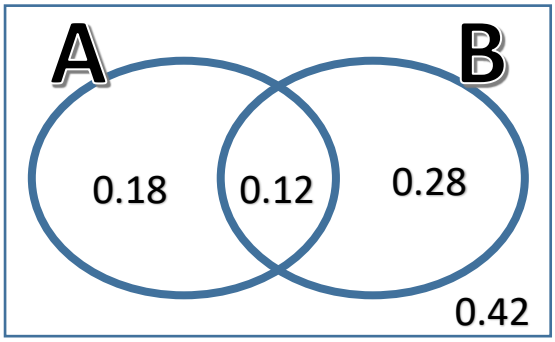
Since A and B are independent,

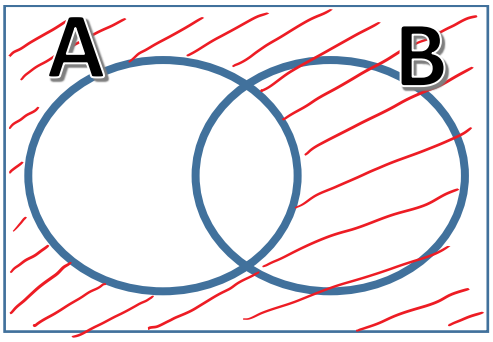
$P(A \cap B) = P(A) \times P(B)$

$P(A \cap B) = 0.3 \times 0.4 = 0.12$

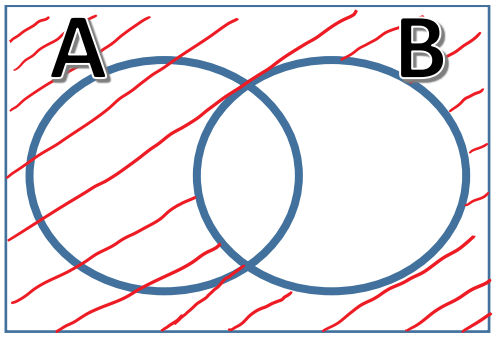


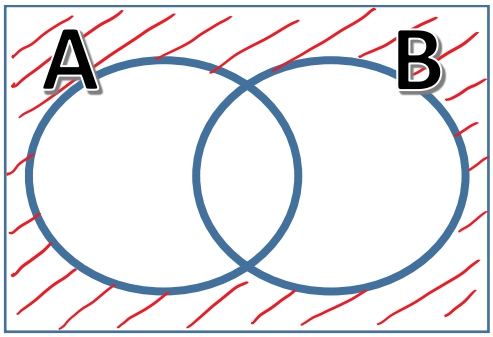

a) This question is fairly simply if we understand what $P(A' \cap B')$ refers to
Consider what is shaded in both P(A') and P(B')

$P(A')$




$P(B')$




$P(A' \cap B') = 0.42$

b) $P(A'|B') = \frac{P(A' \cap B')}{P(B')}$

$= \frac{0.42}{0.6}$

$= 0.7$