

QUESTION

If  $p(A) = 0.2$ ,  $p(B) = 0.4$  and  $p(A \text{ or } B) = 0.5$ , what is  $p(A \text{ and } B)$ ?

ANSWER

$p(A \text{ or } B) = p(A) + p(B) - p(A \text{ and } B)$ .

Therefore  $p(A \text{ and } B) = 0.2 + 0.4 - 0.5 = 0.1$