

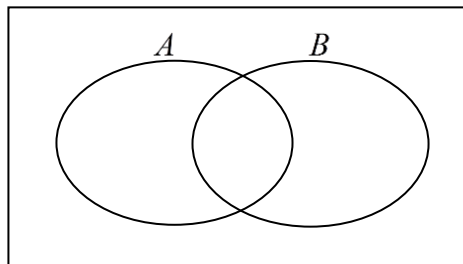


QUIZ 3

NAME	
COURSE CODE	DUM 2413 STATISTICS AND PROBABILITY
DURATION	10 MINUTES

If A and B are two events and $P(A) = 0.60$, $P(B) = 0.30$ and $P(A \cup B) = 0.80$, find

- (i) $P(A \cap B)$.
- (ii) Based on the information given and the answer in (i), complete the following Venn diagram by labeling the corresponding probability.



- (iii) $P(A' \cap B)$.
- (iv) $P(A' \cap B')$.
- (v) $P(A \cup B)$.
- (vi) $P(A \cap B')$.



ANSWERS:

(i) $P(A \cap B) = P(A) + P(B) - P(A \cup B)$

$$P(A \cap B) = 0.60 + 0.30 - 0.80$$

$$P(A \cap B) = 0.10$$

(iii) $P(A' \cap B) = 0.20$

(iv) $P(A' \cap B') = 0.20$

(v) $P(A' \cup B) = 0.50$

(vi) $P(A' \cup B) = 0.50$

