

- Q.1 If A and B are two sets such that $A \subset B$, then what is $A \cup B$ and $A \cap B$?
- Q.2 If $A = \{4, 8, 10, 12\}$, $B = \{3, 6, 9, 12, 15\}$, $C = \{1, 2, 3, 7, 8, 9\}$ and $D = \{6, 7, 8, 11, 13, 15\}$. Find
- (a) $A \cap B$ (b) $A \cap C \cap D$
- (c) $A \cap (B \cup C)$ (d) $(A \cap B) \cap (B \cup C)$
- (e) $A \cap (B \cup D)$ (f) $(A \cup D) \cap (B \cup C)$
- Q.3 Which of the following pairs of sets are disjoint :
- (a) $V = \{-2, 0, 4, 7, 9\}$ and W is the set of odd numbers.
- (b) $A = \{x : x \text{ is an even integer}\}$ and $B = \{x : x \text{ is a prime number}\}$.
- Q.4 If $A = \{x : x \in \mathbb{N} \text{ and } 30 \leq x \leq 40\}$ and $B = \{x : 20 \leq x \leq 50 \text{ and } x \text{ is divisible by } 4\}$. Find $A - B$ and $B - A$.

