



INDIAN SCHOOL AL BURAIMI
MATHEMATICS - WORKSHEET

NAME :

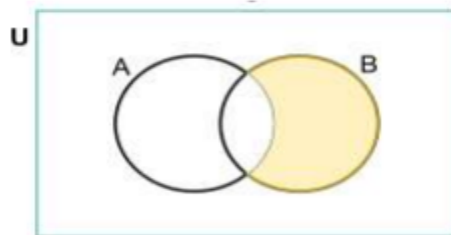
DATE : 30..04.26

STD : XI

TOPIC : SETS

WORKSHEET NO: 01

1. Let $U = \{x: x \text{ is a factor of } 30\}$, $A = \{x: x \text{ is a multiple of } 5, x < 35\}$ and $B = \{x: x \text{ is odd natural number, } x < 31\}$, then $(A \cup B)'$ is equal to:
A) $\{1,2,3,6,15,\}$ B) $\{2,6\}$ C) $\{6,15\}$ D) $\{2,3\}$
2. The number of subsets of $A = \{1, 2, 4\}$ is:
A) 4 B) 8 C) 2 D) 3
3. If the sets A and B are given by $A = \{2, 3, 4\}$, $B = \{2, 4, 6\}$ and the universal set $U = \{1, 2, 3, 4, 5, 6, 7\}$, then:
A) $(A \cup B)' = \{5, 7, 1\}$ C) $(A \cap B)' = \{5, 7, 1, 3\}$
B) $(A \cup B)' = \{2, 3, 4, 6\}$ D) $(A \cap B)' = \{2, 6\}$
4. If $n(A) = 4$ and $n(B) = 5$, then the maximum number of elements in $A \cap B$ is:
A) 5 B) 3 C) 4 D) 9
5. If $A = \{x \in \mathbb{Z}: -3 \leq x < 4\}$ and $B = \{x \in \mathbb{Z}: x^2 < 9\}$, then $A \cup B$ is:
A) $\{-4, -3, -2, -1, 0, 1, 2\}$ C) $\{-3, -2, -1, 0, 1, 2, 3, 4\}$
B) $\{-2, -1, 0, 1, 2\}$ D) $\{-3, -2, -1, 0, 1, 2, 3\}$
6. The shaded region in the following Venn diagram represents:



- A) $A \cap B'$ B) $B \cap A'$ C) $A \cup B'$ D) B'
7. $L = \{x: x \text{ is a positive integer less than } 6\}$ and $M = \{x: x \text{ is a positive integer and multiple of } 2\}$ Find
(a) $L \cup M$ (b) $L \cap M$
8. If A and B are two given sets, then represent the set $(A - B)'$, using the Venn diagram.
9. If $U = \{1, 2, 3, \dots, 10\}$, $A = \{1, 2, 3, 5\}$, $B = \{2, 4, 6, 7\}$, find $(A - B)'$

