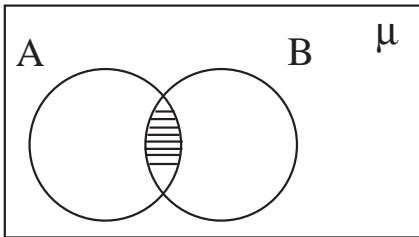
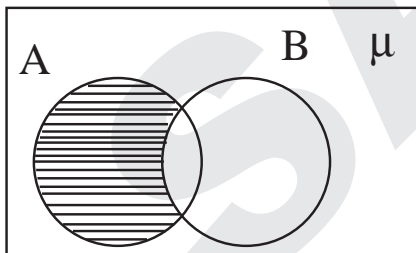


## 2. SETS

1. The symbol for a Universal Set is \_\_\_\_\_
2. If  $A = \{a, b, c\}$ , the number of subsets of A is \_\_\_\_\_
3. The set builder form of  $A \cap B$  is \_\_\_\_\_
4. For every set A,  $A \cap \phi =$  \_\_\_\_\_
5. Two Sets A and B are said to be disjoint if \_\_\_\_\_
6. The Shaded region in the adjacent figure is \_\_\_\_\_



7.  $A = \{x: x \text{ is a circle in a give plane}\}$  is \_\_\_\_\_
8.  $n(A \cup B) =$  \_\_\_\_\_
9. If A is subset of B, then  $A - B =$  \_\_\_\_\_
10. If  $A = \{1, 2, 3, 4, 5\}$  then the cardinal number of A is \_\_\_\_\_
11.  $A = \{2, 4, 6, 8, 10\}$ ,  $B = \{1, 2, 3, 4, 5\}$  then  $B - A =$  \_\_\_\_\_
12. If  $A \subset B$  then  $A \cap B =$  \_\_\_\_\_
13. If  $A \subset B$  then  $A \cup B =$  \_\_\_\_\_
14. The shaded region in the given figure represents \_\_\_\_\_



15. The Symbol for null set is = \_\_\_\_\_
16. Roster form of  $\{x: x \in \mathbb{N}, 9 \leq x \leq 16\}$  is \_\_\_\_\_
17. If  $A \subset B$  and  $B \subset A$  then \_\_\_\_\_
18. If  $A \subset B$  and  $B \subset C$  then \_\_\_\_\_
19.  $A \cup \phi =$  \_\_\_\_\_
20. The Set theory was developed by \_\_\_\_\_
21. If  $n(A) = 7$ ,  $n(B) = 8$ ,  $n(A \cap B) = 5$  then  $n(A \cup B) =$  \_\_\_\_\_
22. A set is a \_\_\_\_\_ collection of objects.
23. Every set is \_\_\_\_\_ of it self.

24. The number of elements in a set is called the \_\_\_\_\_ of the set
25.  $A = \{ 2, 4, 6, \dots \}$ ,  $B = \{ 1, 3, 5, \dots \}$  then  $n(A \cap B) =$  \_\_\_\_\_
26. A and B are disjoint sets then  $A - B =$  \_\_\_\_\_
27. If  $A \cup B = A \cap B$  then  $=$  \_\_\_\_\_
28.  $A = \{ x: x^2 = 4 \text{ and } 3x = 9 \}$  is a \_\_\_\_\_ set
29.  $A = \{ 2, 5, 6, 8 \}$  and  $B = \{ 5, 7, 9, 1 \}$  then  $A \cup B =$  \_\_\_\_\_
30. If  $A \subset B$ ,  $n(A) = 3$ ,  $n(B) = 5$ , then  $n(A \cap B) =$  \_\_\_\_\_
31. If  $A \subset B$ ,  $n(A) = 3$ ,  $n(B) = 5$ , then  $n(A \cup B) =$  \_\_\_\_\_
32. A, B are disjoint sets then  $(A - B) \cap (B - A) =$  \_\_\_\_\_
33.  $A = \{ 1, 2, 3, 4 \}$  and  $B = \{ 2, 4, 6, 8 \}$  then  $B - A =$  \_\_\_\_\_
34. Set builder form of  $A \cup B$  is  $=$  \_\_\_\_\_

## ANSWERS

- 1)  $\mu$ ; 2) 8; 3)  $\{x: x \in A \text{ and } x \in B\}$ ; 4)  $\phi$ ;
- 5)  $A \cap B = \phi$ ; 6)  $A \cap B$ ; 7) Infinite Set;
- 8)  $n(A) + n(B) - n(A \cap B)$ ; 9)  $\phi$ ; 10) 5;
- 11)  $\{1, 3, 5\}$ ; 12) A; 13) B; 14)  $A - B$ ;
- 15)  $\phi$ ; 16)  $\{9, 10, 11, 12, 13, 14, 15, 16\}$ ; 17)  $A = B$ ; 18)  $A \subset C$ ;
- 19) A; 20) George Cantor ; 21) 10; 22) Well defined;
- 23) Subset; 24) cardinal number; 25) 0; 26) A; 27)  $A = B$ ; 28) Null Set;
- 29)  $\{1, 2, 5, 6, 7, 8, 9\}$ ; 30) 3; 31) 5;
- 32)  $\phi$ ; 33)  $\{6, 8\}$ ; 34)  $\{x: x \in A \text{ or } x \in B\}$