MATHS

BOOKS - VGS BRILLIANT MATHS (TELUGU ENGLISH)

SETS

Examples

1. Let A={2,5,6,8} and B={5,7,9,11}. Find $A \cup B$.

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2. Let A={a,e,i,o,u} and B={a,i,u}. Show that $A \cup B = A$.

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3. IF A={1,2,3,4} and B={2,4,6,8}. Find $A \cup B$.

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4. Find $A \cap B$ when A={5,6,7,8} and B={7,8,9,10}.

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5. IF A={1,2,3} and B={3,4,5}, then Illustrate $A \cap B$ in Venn-diagrams.

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6. Let A={1,2,3,4,5},B={4,5,6,7}. Find A-B.

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7. IF A={p,q,r} and B={q,p,r), then check whether A=B or not.

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8. IF A={1,2,3....} and N is a set of natural numbers, then check whether A and N are equal?

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9. Consider the sets A={p,q,r,s} and B={1,2,3,4}. Are they equal?

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10. Let A be the set of prime numbers smaller than 6 and p the set of prime factors of 30. Check if A and P are equal.

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11. Show that the sets A and B are equal where,

A={x:x is a letter in the word 'ASSASSINATION'}`

B={x:x is a letter in the word 'STATION' }

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12. Consider the sets ϕ A={1,3}, B={1,5,9}, C={1,3,5,7,9}. Insert the symbol $\subset$ or $\not\subset$ between each of the following pair of sets.

$\phi \ldots\ldots\ldots\ldots\ldots B$

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13. Consider the sets ϕ A={1,3}, B={1,5,9}, C={1,3,5,7,9}. Insert the symbol $\subset$ or $\not\subset$ between each of the following pair of sets.

A.....B

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14. Consider the sets ϕ A={1,3}, B={1,5,9}, C={1,3,5,7,9}. Insert the symbol $\subset$ or $\not\subset$ between each of the following pair of sets.

A.....C

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15. Consider the sets ϕ A={1,3}, B={1,5,9}, C={1,3,5,7,9}. Insert the symbol $\subset$ or $\not\subset$ between each of the following pair of sets.

B.....C

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16. State which of the following sets are finite and infinite.

$\{x : x \in N \text{ and } (x-1)(x-2) = 0\}$

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17. State which of the following sets are finite and infinite.

$\{x : x \in N \text{ and } x^2 = 4\}$

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18. State which of the following sets are finite and infinite.

$\{x : x \in N \text{ and } 2x - 2 = 0\}$

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19. State which of the following sets are finite and infinite.

$\{x : x \in N$ and x is prime$\}$

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20. State which of the following sets are finite and infinite.

$\{x : x \in N$ and x is odd$\}$

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21. IF A={1,2,3,4,5},B={2,4,6,8} then find n ($A \cup B$).

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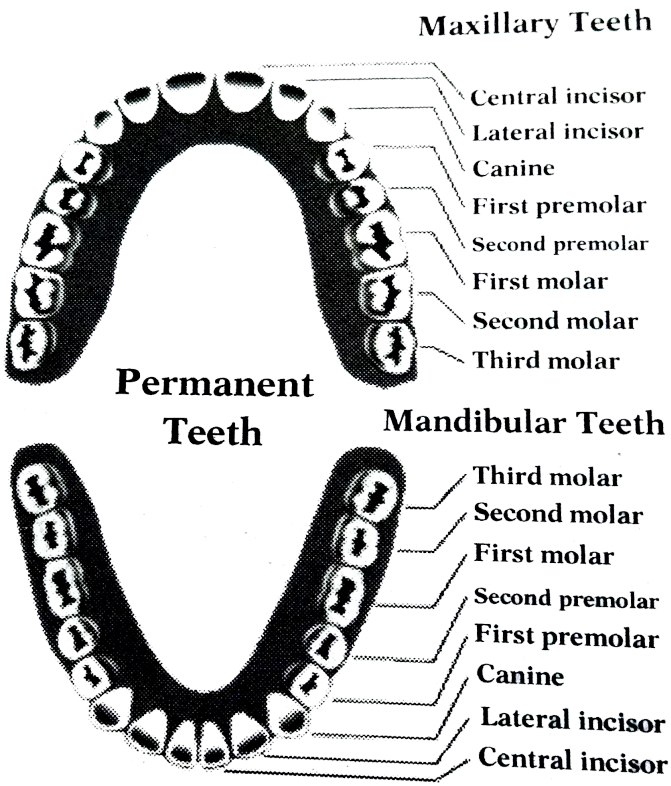
Do This



1. ___

List the teeth under each of the following type

Incisors

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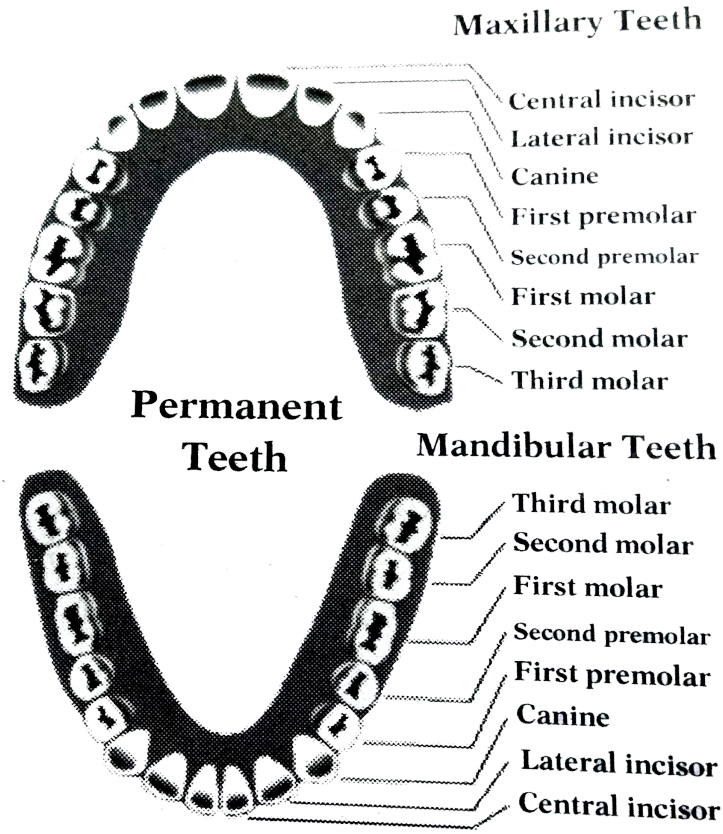

2.

List the teeth under each of the following type

Canines

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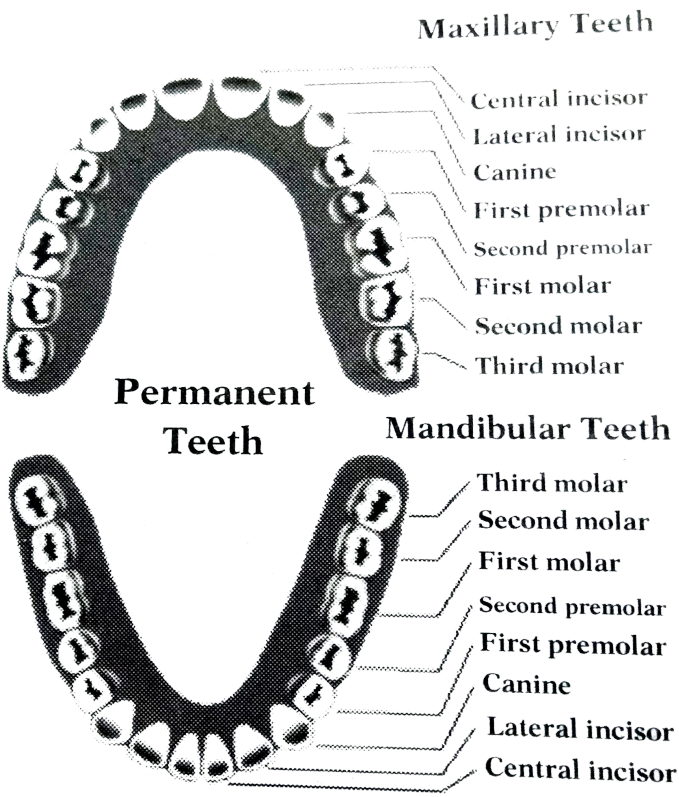

3.

List the teeth under each of the following type

Pre-molars

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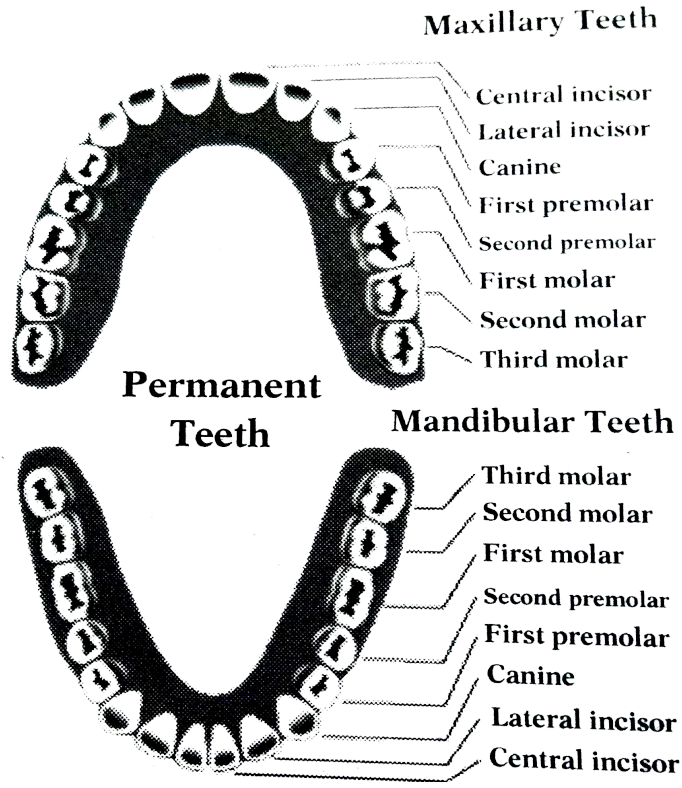
4.



List the teeth under each of the following type

molars

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5. Identify and write the common property" of the following collections.

2,4,6,8,.....

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6. Identify and write the common property" of the following collections.

2,3,5,7,11,.....

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7. Identify and write the common property" of the following collections.

1,4,9,16,....

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8. Identify and write the common property" of the following collections.

January, February, March, April.....

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9. Identify and write the common property" of the following collections.

Thumb,index finger, middle finger, ring finger, little finger

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10. Write the following sets:

Set of the first five positive integers.

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11. Write the following sets:

Set of multiple of 5 which are more than 100 and less than 125.

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12. Write the following sets:

Set of first five cubic numbers.

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13. Write the following sets:

Set of digits in the Ramanujan number.

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14. Some numbers are given below. Decide the numbers to which number sets they belong to and does not belong to and express with correct symbols.

1

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15. Some numbers are given below. Decide the numbers to which number sets they belong to and does not belong to and express with correct symbols.

0

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16. Some numbers are given below. Decide the numbers to which number sets they belong to and does not belong to and express with

correct symbols.

-4

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17. Some numbers are given below. Decide the numbers to which number sets they belong to and does not belong to and express with correct symbols.

$\frac{5}{6}$

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18. Some numbers are given below. Decide the numbers to which number sets they belong to and does not belong to and express with correct symbols.

$\frac{4}{5}$

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19. Some numbers are given below. Decide the numbers to which number sets they belong to and does not belong to and express with

correct symbols.

1. $\bar{3}$

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20. Some numbers are given below. Decide the numbers to which number sets they belong to and does not belong to and express with correct symbols.

$\sqrt{-5}$

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21. Some numbers are given below. Decide the numbers to which number sets they belong to and does not belong to and express with correct symbols.

0.03

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22. Some numbers are given below. Decide the numbers to which number sets they belong to and does not belong to and express with

correct symbols.

π

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23. Some numbers are given below. Decide the numbers to which number sets they belong to and does not belong to and express with correct symbols.

$\sqrt{-4}$

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24. List the elements of the following sets.

G={all the factors of 20}

25. List the elements of the following sets.

F={ the multiples of 4 between 17 and 61 which are divisible by 7}

26. List the elements of the following sets.

S={x:x is a letter in a word 'MADAM'}

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27. List the elements of the following sets.

P={x:x is a whole number between 3.5 and 6.7}

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28. Write the following sets in the roster form.

B is the set of all months in a year having 30 days.

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29. Write the following sets in the roster form.

P is the set of all prime numbers smaller than 10.

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30. Write the following sets in the roster form.

X is the set of the colours of the rainbow.

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31. A is the set of factors of 12. Which one of the following is not a member of A?

A. 1

B. 4

C. 5

D. 12

Answer: C

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32. A={1,2,3,4},B={2,4}

C={1,2,3,4,7}ϕ={ }.

Fill in the blanks with $\subset$ and $\not\subset$

A.....B

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33. A={1,2,3,4},B={2,4}

C={1,2,3,4,7}ϕ={ }.

Fill in the blanks with $\subset$ and $\not\subset$

C....A

Watch Video Solution

34. A={1,2,3,4},B={2,4}

C={1,2,3,4,7}ϕ={ }.

Fill in the blanks with $\subset$ and $\not\subset$

B.....A

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35. A={1,2,3,4},B={2,4}

C={1,2,3,4,7}ϕ={ }.

Fill in the blanks with $\subset$ and $\not\subset$

A.....C

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36. A={1,2,3,4},B={2,4}

C={1,2,3,4,7}ϕ={ }.

Fill in the blanks with $\subset$ and $\not\subset$

B.....C

Watch Video Solution

37. A={1,2,3,4},B={2,4}

C={1,2,3,4,7}ϕ={ }.

Fill in the blanks with $\subset$ and $\not\subset$

ϕ.....B

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38. State which of the following statements are true.

$\{\} = \phi$

A. null set

B. finite set

C. infinite set

D. none

Answer: 1

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39. State which of the following statement are true.

(i) $\{\} = \phi$ (ii) $\phi = 0$ (iii) $0 = \{0\}$

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40. State which of the following statements are true.

$\{\} = \phi$

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41. Let A={1,3,7,8} and B={2,4,7,9} Find $A \cap B$.

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42. IF A=$\{6, 9, 11\}$, $\phi = \{\}$, find $A \cup \phi$, $A \cap \phi$.

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43. A={1,2,3,4,5,6,7,8,9,10}, B={2,3,5,7}. Find A ∩ B and show that $A \cap B$=B.

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44. If A={4,5,6},B={7,8} then show that $A \cup B = B \cup A$.

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45. IF A={1,2,3,4,5}, B={4,5,6,7}, then find A-B and B-A. Are they equal?

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46. IF V={a,e,I,o,u) and B={a,o,k,u}, find V-B and B-V.

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47. Which of the following are empty sets?

Justify your answer.

Set of integers which lie between 2 and 3.

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48. Which of the following are empty sets?

Justify your answer.

Set of natural numbers that are smaller than 1.

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49. Which of the following are empty sets?

Justify your answer.

Set of odd numbers that leave remainder zero,

when divided by2.

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50. State which of the following sets are finite and which are infinite. Give reasons for your answer.

$A = \{x : x \in N \text{ and } x < 100\}$

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51. State which of the following sets are finite and which are infinite. Give reasons for your answer.

$B = \{x : x \in N \text{ and } x \leq 5\}$

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52. State which of the following sets are finite and which are infinite. Give reasons for your answer.

$C = \{1^2, 2^2, 3^2, \ldots\ldots\}$

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53. State which of the following sets are finite and which are infinite. Give reasons for your

answer.

$D = \{1, 2, 3, 4\}$

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54. State which of the following sets are finite and which are infinite. Give reasons for your answer.

{x:x is a day of the week}

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55. Tick the set which is finite

A. The set of whole number > 10

B. The set of whole numbers > 20

C. The set of integers > 10

D. The set of factors of 10

Answer: D

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Try This

1. A={1,2,3,4}, B={5,0,8,10} then A-B =.....

A. A

B. B

C. ϕ

D. none

Answer: A

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2. Match the roster form with set builder form.

i) {1, 2, 3, 6}	( ) a)	{x : x is a prime number and a divisor of 6}
ii) {2, 3}	( ) b)	{x : x is an odd natural number smaller than 10}
iii) {M, A, T, H, E, I, C, S}	( ) c)	{x : x is a natural number and divisor of 6}
iv) {1, 3, 5, 7, 9}	( ) d)	{x : x is a letter of the word MATHEMATICS}

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3. A={set of quadrilaterals}, B={square, rectangle, trapezium, rhombus}.

State whether $A \subset B$ or $B \subset A$. Justify your answer.

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4. If A={a,b,c,d}. How many subsets does the set A have?

A. 5

B. 6

C. 16

D. 65

Answer: C

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5. P is the set of factors of 5, Q is the set of factors of 25 and R is the set of factors of 125. Which one of the following is false?

A. $P \subset Q$

B. $Q \subset R$

C. $R \subset P$

D. $P \subset R$

Answer: C

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6. A is the set of prime numbers smaller than 10, B is the set of odd number $<$ 10 and C is the set of even number $<$ 10. How many of the following statements are true?

(i)$A \subset B$ (ii)$B \subset A$ (iii)$A \subset C$ (iv) $C \subset A$ (v) $B \subset C$ (vi) $C \subset B$

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7. List out some sets A and B and choose their elements such that A and B are disjoint.

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8. IF A={2,3,5}, find $A \cup \phi$ and $\phi \cup A$ and compare.

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9. IF A={1,2,3,4},B={1,2,3,4,5,6,7,8}, then find $A \cup B$, $A \cap B$.What do you notice about the result?

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10. A={1,2,3,4,5,6}, B={2,4,6,8,10}. Find the intersection of A and B.

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11. Which of the following sets are empty sets?

Justify your answer

A=$\{x : x^2 = 4 \text{ and } 3x = 9\}$

Watch Video Solution

12. Which of the following sets are empty sets?

Justify your answer

The sets of all traingles in a plane having the sum of their three angles less than 180.

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13. B={x:x+5=5} is not an empty set. Why?

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Think Discuss

1. Identify and write the common property" of the following collections.

2,4,6,8,.....

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2. Observe the following collections and prepare as many as generalized statements you can describing their move properties.

1,4,9,16.....

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3. Can you write set of rational numbers listing elements in it?

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4. Is empty set subset to every set?

 Watch Video Solution

5. Is any set subset to itself?

Watch Video Solution

6. You are given two sets such that a set is not a subset of the other. If you have to prove this , how do you prove?

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7. The intersection of any two disjoint sets is a null set. Justify your answer.

Watch Video Solution

8. The sets A-B, B-A and $A \cap B$ are mutually disjoint sets. Use examples to observe if this is true.

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9. An empty set is a finite set, Is this statement true or false?Why?

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10. n(A)=2,n(B)=7, $n(A \cap B) = 1$ and $n(A \cup B)$?

Watch Video Solution

11. IF A and B are disjoint sets then how can you find $n(A \cup B)$?

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Exercise 2 1

1. Which of the following are sets? Justify your answer.

The collection of all months of a year beginning with the letter "J"

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2. Which of the following are sets? Justify your answer.

The collection of ten most talented writers of India.

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3. Which of the following are sets? Justify your answer.

A team of eleven best cricket batsmen of the world.

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4. Which of the following are sets? Justify your answer.

The collection of all boys in your class.

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5. Which of the following are sets? Justify your answer.

The collection of all even integers.

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6. IF A={0,2,4,6}, B={3,5,7} and C={p,q,r} the fill the appropriate symbol , $\in$ or $\notin$ in the

blanks.

0.....A

Watch Video Solution

7. IF A={0,2,4,6}, B={3,5,7} and C={p,q,r} the fill the appropriate symbol , $\in$ or $\notin$ in the blanks.

3.....C

Watch Video Solution

8. IF A={0,2,4,6}, B={3,5,7} and C={p,q,r} the fill the appropriate symbol , $\in$ or $\notin$ in the blanks.

4.....B

Watch Video Solution

9. IF A={0,2,4,6}, B={3,5,7} and C={p,q,r} the fill the appropriate symbol , $\in$ or $\notin$ in the blanks.

8.....A

Watch Video Solution

10. IF A={0,2,4,6}, B={3,5,7} and C={p,q,r} the fill the appropriate symbol , $\in$ or $\notin$ in the blanks.

p.....C

Watch Video Solution

11. IF A={0,2,4,6}, B={3,5,7} and C={p,q,r} the fill the appropriate symbol , $\in$ or $\notin$ in the

blanks.

7.....B

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12. Express the following statements using symbols.

The elements 'X' does not belong to 'A'.

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13. Express the following statements using symbols.

'd' is an element of the set'B'

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14. Express the following statements using symbols.

'I' belongs to the set of Natural numbers N.

Watch Video Solution

15. Express the following statements using symbols.

'8' does not belong to the set of prime numbers P.

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16. State whether the following statements are true or false. Justify your answer.

$5 \notin$ set of prime numbers

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17. State whether the following statements are true or false. Justify your answer.

$S=\{5,6,7\}$ implies $8 \in S$.

Watch Video Solution

18. State whether the following statements are true or false. Justify your answer.

$-5 \notin W$ where 'W' is the set of whole numbers.

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19. State whether the following statements are true or false. Justify your answer.

$\frac{8}{11} \in Z$

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20. Write the following sets is roster form.

B={x:x is a natural number smaller than 6}.

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21. Write the following sets is roster form.

C={x:x is a two-digit natural number such that the sum of its digits is 8}.

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22. Write the following sets is roster form.

D={x:x is a prime number which is a divisor of 60}.

 Watch Video Solution

23. Write the following sets is roster form.

E={x:x is an alphabet in BETTER}.

24. Write the following sets in the set-builder form.

{3,6,9,12}

25. Write the following sets in the set-builder form.

{2,4,8,16,32}

26. Write the following sets in the set-builder form.

{5,25,125,625}

27. Write the following sets in the set-builder form.

{1,4,9,16,25,.....,100}

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28. Write the following sets in roster-form.

A={x:x is a natural number greater than 50 but smaller than 100}

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29. Write the following sets in roster-form.

B={x:x is an integer, $x^2 = 4$}

Watch Video Solution

30. Write the following sets in roster-form.

D={x:x is a letter in the word "LOYAL"}

Watch Video Solution

31. Match the roster form with set builder form.

i) {1, 2, 3, 6}	( ) a) {x : x is a prime number and a divisor of 6}
ii) {2, 3}	( ) b) {x : x is an odd natural number smaller than 10}
iii) {M, A, T, H, E, I, C, S}	( ) c) {x : x is a natural number and divisor of 6}
iv) {1, 3, 5, 7, 9}	( ) d) {x : x is a letter of the word MATHEMATICS}

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Exercise 2 2

1. IF A={1,2,3,4), B={1,2,3,5,6} then find $A \cap B$ and $B \cap A$. Are they equal?

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2. IF A={2,4,6,8,10} and B={3,6,9,12,15}, find A-B and B-A.

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3. IF A and B are two sets such that $A \subset B$ then, What is $A \cup B$?

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4. IF A={x:x is a natural number},

B={x:x is an even natural number},

C={x:x is an odd natural number} and

D={x:x is a prime number}

Find.

$A \cap B, A \cap C, A \cap D, B \cap C, B \cap D, C \cap D$

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5. IF A={3,6,9,12,15,18,21}, B={4,8,12,16,20}, C={2,4,6,8,10,12,14,16}, D={5,10,15,20} find

A-C

Watch Video Solution

6. IF A={3,6,9,12,15,18,21}, B={4,8,12,16,20}, C={2,4,6,8,10,12,14,16}, D={5,10,15,20} find

A-D

Watch Video Solution

7. IF A={3,6,9,12,15,18,21}, B={4,8,12,16,20}, C={2,4,6,8,10,12,14,16}, D={5,10,15,20} find

B-A

Watch Video Solution

8. IF A={3,6,9,12,15,18,21}, B={4,8,12,16,20}, C={2,4,6,8,10,12,14,16}, D={5,10,15,20} find

C-A

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9. IF A={3,6,9,12,15,18,21}, B={4,8,12,16,20}, C={2,4,6,8,10,12,14,16}, D={5,10,15,20} find

D-A

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10. IF A={3,6,9,12,15,18,21}, B={4,8,12,16,20}, C={2,4,6,8,10,12,14,16}, D={5,10,15,20} find

B-C

Watch Video Solution

11. IF A={3,6,9,12,15,18,21}, B={4,8,12,16,20}, C={2,4,6,8,10,12,14,16}, D={5,10,15,20} find

B-D

Watch Video Solution

12. IF A={3,6,9,12,15,18,21}, B={4,8,12,16,20}, C={2,4,6,8,10,12,14,16}, D={5,10,15,20} find

C-B

Watch Video Solution

13. IF A={3,6,9,12,15,18,21}, B={4,8,12,16,20}, C={2,4,6,8,10,12,14,16}, D={5,10,15,20} find

D-B

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14. State whether each of the following statement is true or false. Justify your answers. {2,3,4,5} and {3,6} and disjoint sets.

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15. State whether each of the following statement is true or false. Justify your answers.

{a,e,I,o,u} and {a,b,c,d} are disjoint sets.

Watch Video Solution

16. State whether each of the following statement is true or false. Justify your answers.

{2,6,10,14} and {3,7,11,15} are disjoint sets.

Watch Video Solution

17. State whether each of the following statement is true or false. Justify your answers.

{2,6,10} and {3,7,11} are disjoint sets.

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Exercise 2 3

1. Which of the following sets are equal?

A={x : x is a letter in the word FOLLOW}, B={x : x is a letter in the word FLOW} and C={x : x is a letter in the word WOLF}

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2. Which of the following sets are equal?

A={x : x is a letter in the word FOLLOW}, B={x : x is a letter in the word FLOW} and C={x : x is a letter in the word WOLF}

3. Which of the following sets are equal?

A={x : x is a letter in the word FOLLOW}, B={x : x is a letter in the word FLOW} and C={x : x is a letter in the word WOLF}

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4. Consider the following sets and fill up the blanks in the statement given below with = or $\neq$ so as to make the statement true.

A={1,2,3}

B={the first three natural numbers),

C={a,b,c,d}

D={d,c,a,b},

E={a,e,I,o,u},

F={ Set of words in English Alphabet}

A.....B

Watch Video Solution

5. Consider the following sets and fill up the blanks in the statement given below with = or $\neq$ so as to make the statement true.

A={1,2,3}

B={the first three natural numbers),

C={a,b,c,d}

D={d,c,a,b},

E={a,e,I,o,u},

F={ Set of words in English Alphabet}

A.....E

Watch Video Solution

6. Consider the following sets and fill up the blanks in the statement given below with = or $\neq$ so as to make the statement true.

A={1,2,3}

B={the first three natural numbers),

C={a,b,c,d}

D={d,c,a,b},

E={a,e,I,o,u},

F={ Set of words in English Alphabet}

C.....D

Watch Video Solution

7. Consider the following sets and fill up the blanks in the statement given below with = or $\neq$ so as to make the statement true.

A={1,2,3}

B={the first three natural numbers),

C={a,b,c,d}

D={d,c,a,b},

E={a,e,I,o,u},

F={ Set of words in English Alphabet}

D.....F

Watch Video Solution

8. Consider the following sets and fill up the blanks in the statement given below with = or $\neq$ so as to make the statement true.

A={1,2,3}

B={the first three natural numbers),

C={a,b,c,d}

D={d,c,a,b},

E={a,e,I,o,u},

F={ Set of words in English Alphabet}

F.....A

Watch Video Solution

9. Consider the following sets and fill up the blanks in the statement given below with = or $\neq$ so as to make the statement true.

A={1,2,3}

B={the first three natural numbers),

C={a,b,c,d}

D={d,c,a,b},

E={a,e,I,o,u},

F={ Set of words in English Alphabet}

D.....E

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10. Consider the following sets and fill up the blanks in the statement given below with = or $\neq$ so as to make the statement true.

A={1,2,3}

B={the first three natural numbers),

C={a,b,c,d}

D={d,c,a,b},

E={a,e,I,o,u},

F={ Set of words in English Alphabet}

F.....B

Watch Video Solution

11. In each of the following .state whether A=B or not.

A={a,b,c,d}, B={d,c,a,b}

Watch Video Solution

12. In each of the following .state whether A=B or not.

A={4,8,12,16},B={8,4,16,18}

Watch Video Solution

13. In each of the following .state whether A=B or not.

A={2,4,6,8,10}

B={x:x is a positive even integer and $x < 10$}

Watch Video Solution

14. In each of the following .state whether A=B or not.

A={x:x is a multiple of 10}

B={10,15,20,25,30.....}

Watch Video Solution

15. State the reasons for the following:

{1,2,3.....10} $\neq$ {x:x $\in$ N and $1 < x < 10$}

Watch Video Solution

16. State the reasons for the following:

{2,4,6,8,10} $\neq$ {x:x =2n+1 and x $\in$ N}

Watch Video Solution

17. State the reasons for the following:

$\{5,15,30,45\} \neq \{x:x \text{ is a multiple of } 15\}$

Watch Video Solution

18. State the reasons for the following:

$\{2,3,5,7,9\} \neq \{x:x \text{ is a prime number}\}$

Watch Video Solution

19. List all the subsets of the following sets.

$B=\{p,q\}$

20. List all the subsets of the following sets.

$C=\{x,y,z\}$

21. List all the subsets of the following sets.

$D=\{a,b,c,d\}$

Watch Video Solution

22. List all the subsets of the following sets.

$E=\{1,4,9,16\}$

Watch Video Solution

23. List all the subsets of the following sets.

$F=\{10,100,1000\}$

Watch Video Solution

Exercise 2 4

1. State which of the following sets are empty and which are not?

The set of lines passing through a given point.

Watch Video Solution

2. State which of the following sets are empty and which are not?

Set of odd natural numbers divisible by 2.

Watch Video Solution

3. State which of the following sets are empty and which are not?

{x:x is a natural number, $x < 5$ and $x > 7$}

Watch Video Solution

4. State which of the following sets are empty and which are not?

{x:x is a common point to any two parallel lines}

Watch Video Solution

5. State which of the following sets are empty and which are not?

Set of even prime numbers.

Watch Video Solution

6. Which of the following sets are finite or infinite?

The set of month in a year.

 Watch Video Solution

7. Which of the following sets are finite or infinite?

{1,2,3,.....,99,100}

 Watch Video Solution

8. Which of the following sets are finite or infinite?

The set of prime numbers smaller than 99.

Watch Video Solution

9. State whether each of the following sets is finite or infinite.

The set of letters in the English alphabet.

Watch Video Solution

10. State whether each of the following sets is finite or infinite.

The set of lines which are parallel to the X-axis.

Watch Video Solution

11. State whether each of the following sets is finite or infinite.

The set of numbers which are multiple of 5.

Watch Video Solution

12. State whether each of the following sets is finite or infinite.

The set of circles passing through the origin (0,0).

Watch Video Solution

Observation Material To Solve Various Question Given In The Public Examination

1. Write roster and builder form of The set of all natural numbers which divide 42°.

Watch Video Solution

2. Write A{1,2,3,4} in set builder form.

Watch Video Solution

3. List all the subsets of the following sets.

B={p,q}

Watch Video Solution

4. Write the following set $\{x:X=2n+1 \text{ and } n \in N\}$ in roster form.

Watch Video Solution

5. Given any two examples of disjoint sets from your daily life.

Watch Video Solution

6. IF A={Prime numbers less than 10}, and B= {positive odd number less than 10}, then find (i) $A \cap B$ (ii) B-A.

Watch Video Solution

7. Write A={3,9,27,8} in set -builder form.

Watch Video Solution

8. IF A=$\{x : x \in N \text{ and } x < 20\}$ and B= $\{x : x \in N \text{ and } x \leq 5\}$, then write the set A-B in the Set-Builder form.

Watch Video Solution

9. " B is the set of all months in a year having 30 days". Write in roster form.

Watch Video Solution

10. IF A-B={3,4,5} , B-A={1,8,9} and $A \cap B$={6,7}, then find $A \cup B$.

Watch Video Solution

11. Write the set builder form of

$$A = \left\{1, \frac{1}{4}, \frac{1}{9}, \frac{1}{16}, \frac{1}{25}\right\}$$

Watch Video Solution

12. A $=\{x : x \in N$ x is the composite number and $x < 13\}$. Where set A is the roster form.

Watch Video Solution

13. Represent $A \cap B$ through Venn diagram, where A={1,4,6,9,10} and B={perfect square less than 25}.

Watch Video Solution

14. IF A={1,2,3,5} , B={3,4,5,6}, find $A \cap B$.

Watch Video Solution

15. Give one example each for a finite set and an infinite set.

Watch Video Solution

16. Write A=[2,4,8,16] in set builder form.

Watch Video Solution

17. IF $A = \{x / x \in N, x < 6\}$ and $B = \{x : x \in N, 3 < x < 8\}$ then show that A-B $\neq$ B-A with the help of Venn diagram.

Watch Video Solution

18. Answer the following question and Justify your answer.

A={x:x $\in$ N , x $<$ 2015}. Is it a Finite set or an Infinite set?

Watch Video Solution

19. Answer the following question and Justify your answer.

B={x:x +5=5}. It is a null set or a universal set?

Watch Video Solution

20. IF x is set of all factors of 24 and y is set all factors of 36 then find $X \cup Y$ and $X \cap Y$ using Venn diagrams. Comment.

Watch Video Solution

21. A = {x : x $\in$ N, and x is a factor of 30}, B = {x : x $\in$ N and x is a prime factor of 30}. Draw Venn diagram for $A \cup B$.

Watch Video Solution

22. A={x:x $\in$ N, and x is a multiple of 4},

B={x:x $\in$ N , and x is a multiple of 6},

C={x:x $\in$ N, and x is a multiple of L.C.M of 4 and 6}:

Find $A \cap B$. How can you relate the sets $A \cap B$ and C?

Watch Video Solution

23. IF A={x:x $\in$ N, $x < 10$}, B={x:x is a prime number and $x < 10$}, then show that A-B $\neq$ B-A with the help of Venn-diagram.

Watch Video Solution

24. Let A={x / x is an even number}

B={x / x is an odd number}

C={x / x is a prime number }

D={x / x is a multiple of 5}

Find

$A \cup B$

Watch Video Solution

25. Let A={x / x is an even number}

B={x / x is an odd number}

C={x / x is a prime number }

D={x / x is a multiple of 5}

Find

$A \cap B$

Watch Video Solution

26. Let A={x / x is an even number}

B={x / x is an odd number}

C={x / x is a prime number }

D={x / x is a multiple of 5}

Find

C-D

Watch Video Solution

27. Let A={x / x is an even number}

B={x / x is an odd number}

C={x / x is a prime number }

D={x / x is a multiple of 5}

Find

$A \cap C.$

Watch Video Solution

28. IF A={1,2,3,4} and B={1,2,3,5,6} then find

$A \cap B$

Watch Video Solution

29. IF A={1,2,3,4} and B={1,2,3,5,6} then find

$B \cap A$

Watch Video Solution

30. IF A={1,2,3,4} and B={1,2,3,5,6} then find

A-B

 Watch Video Solution

31. IF B={1,2,3,4,5,6} and C={3,5,6} then find

B-C.

 Watch Video Solution

32. IF A={x:x is a natural number},

B={x:x is an even natural number},

C={x:x is an odd natural number},

then Find. $A \cap B$, $A \cap C$, A-B ,A-C and describes sets in set builder form.

Watch Video Solution

33. IF A={3,6,9,12,15,18,21}, B={4,8,12,16,20}, then check whether $A \cup B = B \cup A$ and A-B =B-A.

Watch Video Solution

34. F A={x:x is a natural number},

B={x:x is an even number},

C={x:x is an odd number},

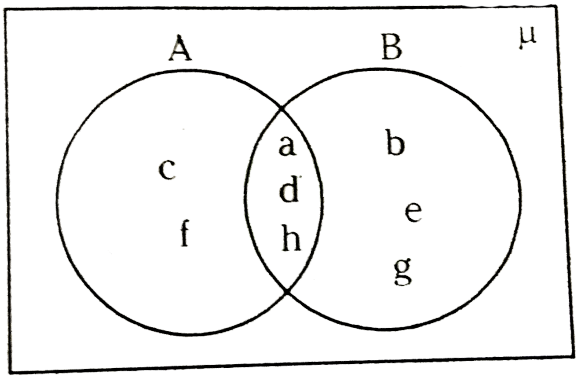
D={x:x is a prime number}

then find $A \cup B$, $A \cap B$, $B \cap C$ and $B \cap D$.

Watch Video Solution

35. From the following Venn diagram. Write the elements of the sets of A and B. and verify

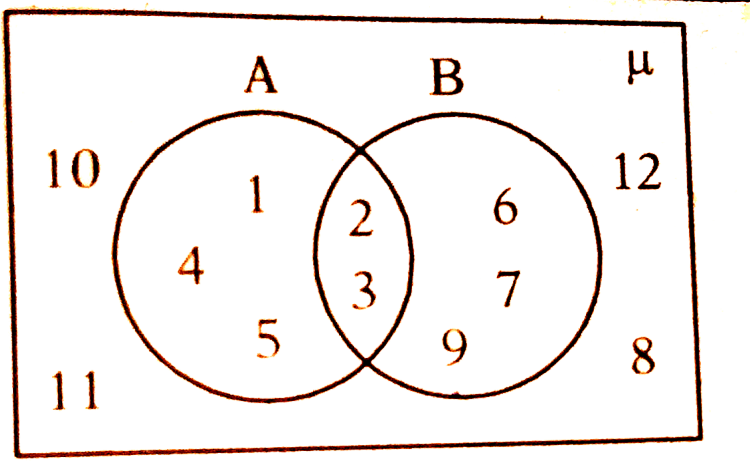
n $(A \cup B)$+n$(A \cap B)$= n(A)+n(B).



Watch Video Solution

36. Using the Venn. Diagram verify

$$n(A \cup B) = n(A) + n(B) - n(A \cap B)$$



Watch Video Solution

37. A={x:x is a perfect square, $x < 50, x \in N$}

B={x:x =8m+1, where $m \in W, x < 50, x \in N$}

Find $A \cap B$ and display it with Venn diagram.

Watch Video Solution

38. IF A={x:x is a natural number less than is 6}

B={x:x is a prime number which is a divisor of 60}

C={x:x is an odd natural number less than 10}

D={x:x is an even natural number which is a divisor of 48}

Then write roster form for all above sets and find

$A \cup B$

Watch Video Solution

39. IF A={x:x is a natural number less than is 6}

B={x:x is a prime number which is a divisor of 60}

C={x:x is an odd natural number less than 10}

D={x:x is an even natural number which is a divisor of 48}

Then write roster form for all above sets and find

$B \cap C$

Watch Video Solution

40. IF A={x:x is a natural number less than is 6}

B={x:x is a prime number which is a divisor of 60}

C={x:x is an odd natural number less than 10}

D={x:x is an even natural number which is a divisor of 48}

Then write roster form for all above sets and find

A-D

 Watch Video Solution

41. IF A={x:x is a natural number less than is 6}

B={x:x is a prime number which is a divisor of 60}

C={x:x is an odd natural number less than 10}

D={x:x is an even natural number which is a divisor of 48}

Then write roster form for all above sets and find

D-B

Watch Video Solution

Observation Bits To Solve Various Question Given In The Public Examination

1. Set of human being that reside on moon is .....

A. finite set

B. null set

C. infinite set

D. universal set

Answer: B

Watch Video Solution

2. IF $A \subset B$, then $A \cap B$=.....

A. A

B. B

C. ϕ

D. μ

Answer: A

Watch Video Solution

3. If n(A)=12 and n($A \cap B$)=5, then findn(A-B)=.....

A. 4

B. 7

C. 17

D. 10

Answer: B

Watch Video Solution

4. IF A={x:x is a letter in the word HEADMASTER}, then its Roster form is............

A. A={h,e,a,d,m,a,s,t,e,r}

B. A={h,e,a,d,m,s,t,r}

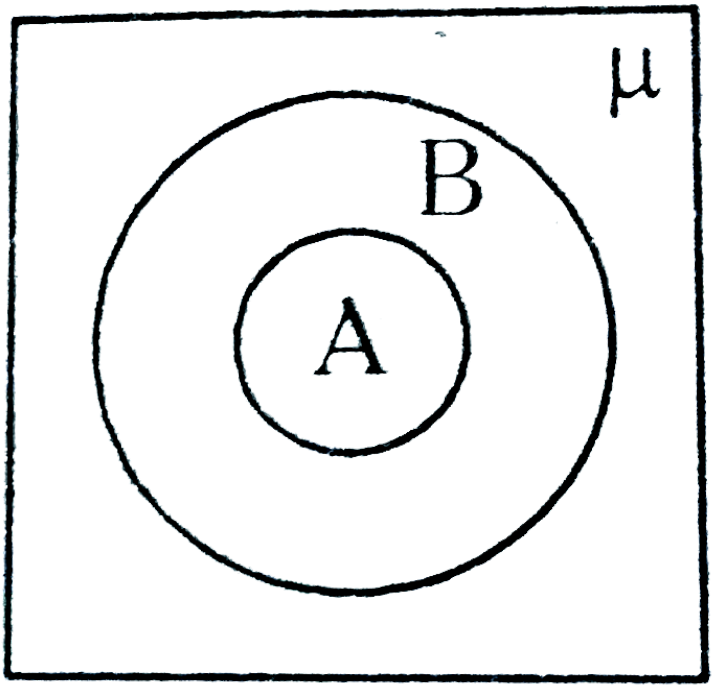
C. A={h,e,a,d,m,s,t,e,r}

D. A={h,e,a,d,m,a,s,t,r}

Answer: B

Watch Video Solution

5. The following Venn diagram indicates.....



A. $A \subset B$

B. $B \subset A$

C. A,B are disjoint sets

D. $\mu \subset B$

Answer: A

Watch Video Solution

6. Write the following sets in Roster form.

C = {x : x is a prime number and a divisor of 6 }

A. {1,2,3,6}

B. {1,2,3}

C. {2,3}

D. {2,3,6}

Answer: C

Watch Video Solution

7. Number of subsets of the set A={1,2,3,4} is.....

A. 4

B. 8

C. 12

D. 16

Answer: D

Watch Video Solution

8. IF $A \subset B$, n(A)=4 and n(B)=6, then n(A $\cup$ B)=

A. 10

B. 6

C. 4

D. 2

Answer: B

 Watch Video Solution

9. IF A={x:x is a letter in the word EX-AMINATION}, then its roster form is .....

A. A={e,x,m,i,n,a,t,o,s}

B. A={e,x,m,i,n,a,t,o}

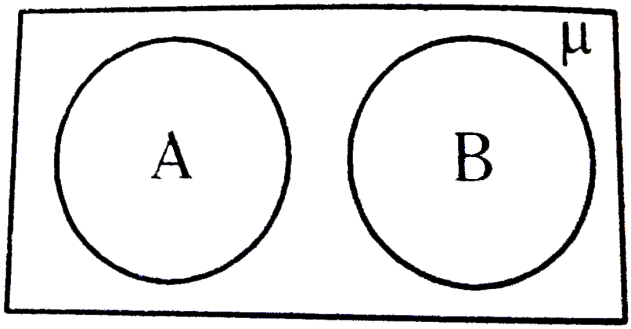
C. A={e,x,m,a,i,n,t,s}

D. A={e,x,m,i,n,t,o}

Answer: B

Watch Video Solution

10. The following Venn diagram indicates.....



A. $A \subset B$

B. $B \subset A$

C. A,B are disjoint sets

D. A=B

Answer: C

Watch Video Solution

11. IF $n(A)-8, n(B)=3$, $n(A \cap B)=2$, then $n(A \cup B)=$.....

A. 5

B. 7

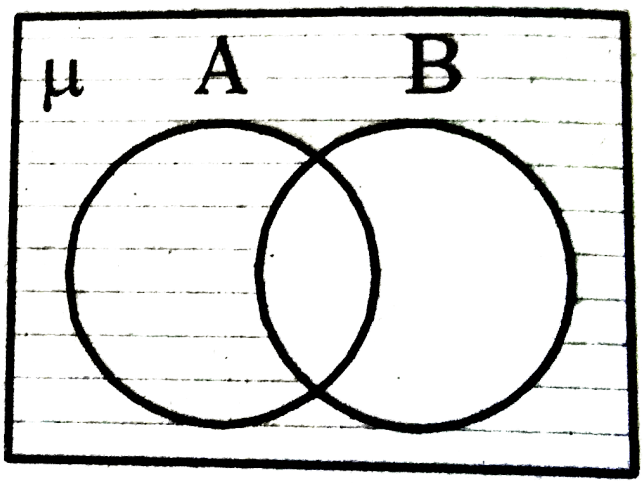
C. 9

D. 13

Answer: C

Watch Video Solution

12. The shaded region in the given figure shows.....



A. A-B

B. B-A

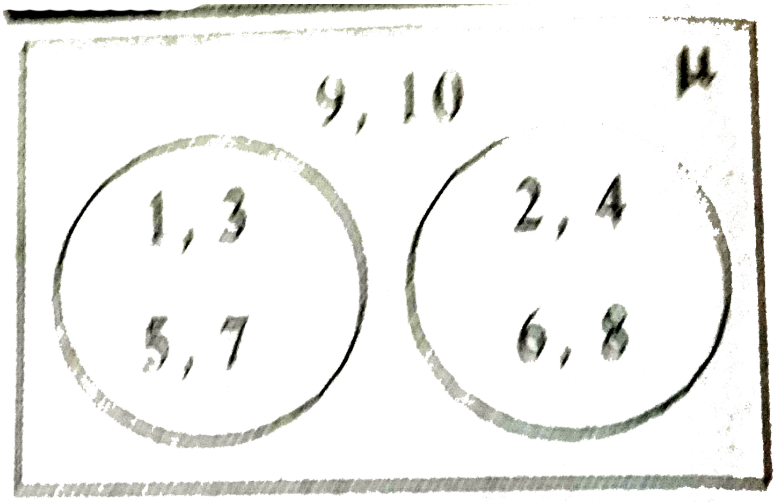
C. $\mu - B$

D. $A \cup B$

Answer: C

Watch Video Solution

13. Which of the following is true in the following Venn diagram.....



A. $A \cup B = \phi$

B. $A \cup B = \mu$

C. $A \cap B = \mu$

D. $A \cap B = \phi$

Answer: D

Watch Video Solution

14. Set A={F,L,W,O} which of the following is not a Set-builder form for set A?

A. {x:x is a letter from the word 'FOLLOW'}

B. {x:x is a letter from the word 'FLOW'}

C. {x:x is a letter from the word 'WOLF'}

D. {x:x is a letter from the word 'SLOW'}

Answer: D

15. IF the union of two sets is one of the set itself, then the reltation between the two sets is.....

A. One set is a subset of other set.

B. Disjoint sets

C. Equal number of elements in both the sets

D. Empty

Answer: A

Watch Video Solution

16. Which of the following is an example for finite set?

A. $\{x / x \in N \text{ and } x^2 = 9\}$

B. Set of rational number in between 2 and 3

C. Mutiples of even primes

D. Set of all primes

Answer: A

Watch Video Solution

17. The number of subsets of the null set ϕ is.....

A. 0

B. 1

C. 3

D. 4

Answer: B

 Watch Video Solution

18. Which one of the following statements if False?

A. Every set is subset of itself

B. Empty set is subset of every set

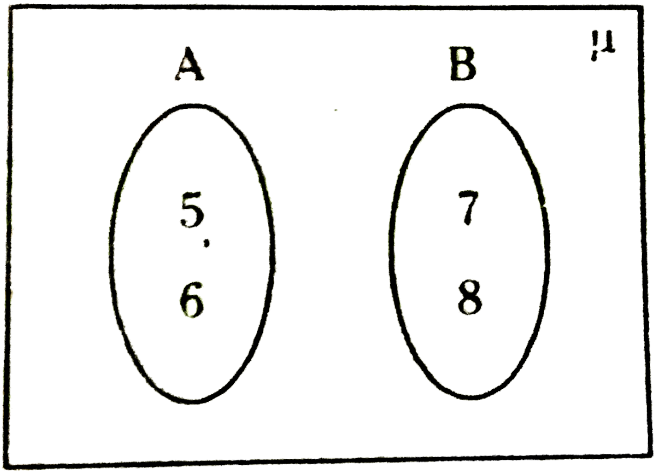
C. Intersection of two disjoint sets is empty set

D. Cardinal number of an infinite set is zero

Answer: B

 Watch Video Solution

19. From the Venn diagram, $A \cup B$=.....



A. {5,6}

B. {5,6,7,8}

C. ϕ

D. {7,8}

Answer: B

 Watch Video Solution

20. The number of subsets of a set is 16, then the set has.....elements.

A. 1

B. 2

C. 3

D. 4

Answer: D

Watch Video Solution

21. IF $A \subset B$, n(A)=12 and n(B)=20, then the value of n(B-A) is

A. 32

B. -8

C. 8

D. -32

Answer: C

Watch Video Solution

Creative Bits Of Cce Model Examination

1. Let A={1,2,{1},{1,2},3,4}, then which of the following is true?

A. $\{3\} \in A$

B. $\{1, 3\} \in A$

C. $\{1, 2\} \in A$

D. None

Answer: C

Watch Video Solution

2. Which of the following is false?

A. $\{1\} \in A$

B. $\{1, 2\} \subseteq A$

C. $\{1, 2\} \in A$

D. None

Answer: D

Watch Video Solution

3. IF A={1,2,3,4}, B={2,4,6,8}, then A-B=.....

A. {6,8}

B. {1,2}

C. {1,3}

D. None

Answer: C

Watch Video Solution

4. If $n(A \cup B)=8$, $n(A)=6$, $n(B)=4$ then $n(A \cap B)=$.....

A. 2

B. 4

C. 6

D. 8

Answer: A

Watch Video Solution

Watch Video Solution

5. Let A,B are two sets such that n(A)=5,n(B)=7 then the maximum number of elements is $A \cup B$ is

A. 7

B. 9

C. 12

D. None

Answer: C

Watch Video Solution

6. State which of the following statements are true. {1,3,5,9,10}

A. empty set

B. finite set

C. infinite set

D. none

Answer: B

Watch Video Solution

7. IF A={1,2,3,4}, then the cardinality of set A is

A. 3

B. 4

C. 5

D. 6

Answer: B

 Watch Video Solution

8. IF A,B are disjoint sets such that n(A)=4 and $n(A \cup B)=7$, then n(B)=.....

A. 4

B. 11

C. 3

D. 20

Answer: C

Watch Video Solution

9. An object of a set is called

A. Subject

B. Number

C. Alphabet

D. Element

Answer: D

 Watch Video Solution

10. The symbol used for 'belongs to ' is

A. $\subset$

B. $\subseteq$

C. $\in$

D. $\notin$

Answer: C

Watch Video Solution

11. The set of all real numbers is

A. ϕ

B. Finite set

C. infinite set

D. None

Answer: C

Watch Video Solution

12. The number of elements in the empty set is

A. 0

B. ϕ

C. 1

D. ∞

Answer: A

 Watch Video Solution

13. If $A = \{1, 2, 2, 1, 3, 4, 3, 4\}$, then n(A) =

A. 0

B. 4

C. 8

D. 20

Answer: B

 Watch Video Solution

14. IF A $\subset$ B, then AUB=.....

A. ϕ

B. μ

C. A

D. B

Answer: D

Watch Video Solution

15. A $\cup \phi$=.....

A. ϕ

B. μ

C. A

D. A^c

Answer: C

Watch Video Solution

16. The German mathematician who developed the theory of sets.....

A. Bhaskara

B. Cayley

C. George Cantor

D. None

Answer: C

Watch Video Solution

17. A set is a .....of objects.

A. well defined collection

B. collection

C. elements

D. None

Answer: A

 Watch Video Solution

18. The objects in the set are called..... Of the set

A. elements

B. members

C. both A&B

D.

Answer: C

Watch Video Solution

19. Roster form of the set of natural number less than 6 is.....

A. {4,5,6}

B. {1,2,3}

C. {2,3,4}

D. {1,2,3,4,5}

Answer: D

Watch Video Solution

20. The set formed the letter of the word "SCHOOL" is.....

A. {S,O,H}

B. {H,O,L}

C. {S,C,H}

D. {S,C,H,O,L}

Answer: D

Watch Video Solution

21. Roster form is also called..... Form.

A. list

B. set

C. number

D. None

Answer: A

 Watch Video Solution

22. Describing a set by same property common to all its elements is called.....or.....

A. set builder form

B. rule form

C. both A&B

D. None

Answer: C

Watch Video Solution

23. K=$\{x / x$ is a prime number less than 13$\}$.

List form of K is.....

A. {5,7,11}

B. {2,3,5,7,11}

C. {1,3,5}

D. None

Answer: B

Watch Video Solution

24. A={2,4,6,8,10} then its rule form is.....

A. A=$\left\{x^2 / x \in N\right\}$

B. A=$\{2x / x is odd, x \leq 20\}$

C. A=$\left\{x^3 / x \in N\right\}$

D. A=$\{x / x$ is an even number , $x \leq 10\}$

Answer: D

Watch Video Solution

25. IF B={1,7,2,0,6} then n(B)=.....

A. 5

B. 6

C. 7

D. 9

Answer: A

 Watch Video Solution

26. $n(\phi)$=.....

A. n

B. ϕ

C. 0

D. 9

Answer: C

Watch Video Solution

27. Every set is .....of itself

A. subset

B. proper set

C. power set

D. None

Answer: A

 Watch Video Solution

28. IF $A \subset B$ and $A \neq B$ then 'A' is called the .....of B.

A. subset

B. proper subset

C. power set

D. None

Answer: B

Watch Video Solution

29. Roster form of the set of multiples of 5 which lie between 25 and 50 is.....

A. {60,70,80}

B. {20,30,45}

C. {30,35,40,45}

D. None

Answer: C

Watch Video Solution

30. In set Builder form, the letter x denotes any.....that belongs to the set.

A. constant

B. element

C. arbitrary element

D. None

Answer: C

Watch Video Solution

31. In the rule form, the slant bar stands for.....

A. subset

B. such that

C. belongs

D. all

Answer: B

Watch Video Solution

32. 2 is.....of set of natural numbers.

A. power

B. proper

C. An element

D. none

Answer: C

Watch Video Solution

33. $-3$is..... Of the set of whole numbers.

A. proper

B. power

C. element

D. not an element

Answer: D

Watch Video Solution

34. -4 is.....of the set of natural numbers.

A. does not belong

B. belong

C. power

D. none

Answer: A

Watch Video Solution

35. 0.....to set of whole numbers.

A. does not belong

B. belong

C. power set

D. none

Answer: B

Watch Video Solution

36. A={1,2,7,10} then 7.....A.

A. $\subset$

B. $\in$

C. $\notin$

D. None

Answer: B

 Watch Video Solution

37. A={1,2,7,10} then 4.....A.

A. $\supset$

B. $\in$

C. $\subset$

D. $\notin$

Answer: D

Watch Video Solution

38. "0 does not belong to the set of natural numbers" we write the statement symbolically as.....

A. $0 \in N$

B. $0 \in N$

C. $0 \subset N$

D. None

Answer: A

Watch Video Solution

39. Set builder form of

$D = \left\{1, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \frac{1}{6}\right\}$ is.....

A. $k = \left\{ \frac{x}{x} = \frac{1}{n^3}, n \in N \right\}$

B. $D = \left\{ \frac{x}{x} = \frac{1}{n}, n \in N, n < 7 \right\}$

C. $D = \left\{ \frac{x^2}{x} = \frac{1}{k^2}, k = 1 \right\}$

D. $k = \left\{ \frac{x}{x} = \frac{1}{n^2}, n \in N \right\}$

Answer: B

Watch Video Solution

40. $B = \left\{ \frac{x^2}{x} + 3 = 6 \right\}$, B=.....

A. {0,1,3}

B. {7,0}

C. {0,3}

D. {3}

Answer: D

 Watch Video Solution

41. A.....is a set with no elements in it.

A. infinite set

B. Finite set

C. null set

D. none

Answer: C

 Watch Video Solution

42. The null set is sometimes denoted as.....

A. empty set

B. void set

C. both A&B

D. None

Answer: C

Watch Video Solution

43. Empty set is denoted by.....

A. $\{\phi\}$

B. {0}

C. N

D. ϕ

Answer: D

 Watch Video Solution

44. {0} is a set contains the element.....

A. 0

B. ϕ

C. $\{\phi\}$

D. None

Answer: A

Watch Video Solution

45. A set with only are element is known as.....set.

A. Double

B. Singleton

C. Tri

D. None

Answer: B

Watch Video Solution

46. Number of elements in a singleton set is.....

A. 0

B. 2

C. 7

D. 1

Answer: D

Watch Video Solution

47. x+y=20,x-y=-4 then x=.....

A. 4

B. 8

C. 0

D. 7

Answer: B

Watch Video Solution

48. B=$\{x / x \in N \text{ and } x < 1000\}$ is a .....set.

A. finite

B. infinite

C. singleton

D. Empty

Answer: A

Watch Video Solution

Watch Video Solution

49. If in two sets A and B , every element if A is in B and every element of B is in A. then we write it as.....

A. $A \neq B$

B. $A < B$

C. $A > B$

D. A=B

Answer: D

Watch Video Solution

50. A $\neq$ B means, set A and B do not contains same elements. This is.....

A. True

B. False

C.

D.

Answer: TRUE

Watch Video Solution

51. The number of elements in a set is called.....of the set.

A. cardinal

B. ordinal

C. 1

D. all of the above

Answer: A

 Watch Video Solution

52. IF B={1,7,2,0,6} then n(B)=.....

A. 7

B. 0

C. 6

D. 5

Answer: D

Watch Video Solution

53. IF every element of A is also an element of B then we write this as.....

A. $A < B$

B. $B > A$

C. $A \subset B$

D. $B \subset A$

Answer: C

Watch Video Solution

54. IF A={1,2,3} and B={1,2,3,4} then we say A is a.....of B.

A. subset

B. superset

C. Equal number of elements in both the sets

D. none

Answer: A

 Watch Video Solution

55. If A= {1,2,3} and B={1,2} then B is.....of A.

A. subset

B. equal

C. superset

D. all of the above

Answer: A

 Watch Video Solution

56. A is not a subset of B if A contains .....which is not in B.

A. equal

B. atleast one element

C. 2

D. none

Answer: B

Watch Video Solution

57. Collection of five scholars in your city is.....

A. a set

B. not a set

C. can't be determined

D. none

Answer: B

 Watch Video Solution

58. $\{x / x$ is a student of your school $\}$ is in .....form.

A. Roster

B. Singleton

C. Set Builder

D. None

Answer: C

Watch Video Solution

59. {2,4,6,8,10} is an example of.....set.

A. finite

B. infinite

C. singleton

D. two

Answer: A

Watch Video Solution

60. $\{x / x$ is a natural number$\}$ is a.....set.

A. finite

B. infinite

C. singleton

D. none

Answer: B

Watch Video Solution

61. $\{x / x \neq x\}$ is a .....set.

A. empty

B. infinite

C. singleton

D. none

Answer: A

Watch Video Solution

62. A={1,2,3}, B={3,4,5} then A $\cap$ B=.....

A. 3

B. {1,2}

C. {4,5}

D. {3}

Answer: D

Watch Video Solution

63. A={a,b,c},B={c,a,b} then.....

A. $A \neq B$

B. A = B

C. $A \subset B$

D. None

Answer: B

Watch Video Solution

64. A={1,2,4}, B={3,5,6} then.....

A. $A \cap B = \phi$

B. $A \cup B = \phi$

C. $A \cap B = \{3\}$

D. None

Answer: A

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65. A={1,2,7}, B={2,1} then.....

A. $A \subset B$

B. $B \subset A$

C. A=B

D. None

Answer: B

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66. A $\subset$ B then A-B=.....

A. $\subset$

B. B

C. A

D. ϕ

Answer: D

Watch Video Solution

67. A-ϕ=.....

A. A

B. ϕ

C. 0

D. None

Answer: A

Watch Video Solution

68. $A \cup A' =$.....

A. ϕ

B. μ

C. A

D. A'

Answer: B

Watch Video Solution

69. μ'=.....

A. A

B. μ

C. ϕ

D. None

Answer: C

Watch Video Solution

70. A={1,2,3}, B={12,0,5} then A-B =.....

A. B

B. A

C. {5}

D. None

Answer: B

 Watch Video Solution

71. $A \cup \phi$=.....

A. A

B. B

C. ϕ

D. μ

Answer: A

Watch Video Solution

72. A Δ B=.....

A. (A-B) $\cup$ (B-A)

B. $(A \cup B) - (A \cap B)$

C. both A&B

D. A - B

Answer: C

Watch Video Solution

73. ϕ'=.....

A. B

B. A

C. μ

D. 0

Answer: C

 Watch Video Solution

74. $\{2,6,10\} \cap \{8,9,11,12,13\}$=.....

A. $\{2\}$

B. $\{1,12\}$

C. $\{13,1\}$

D. ϕ

Answer: D

Watch Video Solution

75. n(A)=4 then n(p(A))=.....

A. 12

B. 13

C. 15

D. 16

Answer: D

 Watch Video Solution

76. $A \cup B = B \cup A$ is called.....law.

A. inverse

B. commutative

C. identity

D. none

Answer: B

Watch Video Solution

77. A-(A-B)=.....

A. $A \cap B$

B. ϕ

C. $A \cup B$

D. B

Answer: A

Watch Video Solution

78. $(A')'$=.....

A. A'

B. A

C. ϕ

D. None

Answer: B

Watch Video Solution

79. IF A $\subset$ B, then A-B=.....

A. μ

B. B

C. A

D. ϕ

Answer: D

Watch Video Solution

80. IF $A \subset B$ then $A \cup (B-A)$=.....

A. B

B. A

C. ϕ

D. None

Answer: A

Watch Video Solution

81. W-{0}=.....

A. R

B. N

C. Z

D. Q

Answer: B

 Watch Video Solution

82. IF A $\subset$ B , B $\subset$ C then.....

A. B=C

B. A=B

C. $C \subset A$

D. $A \subset C$

Answer: D

Watch Video Solution

83. Cardinal number of null set is.....

A. 4

B. ϕ

C. 0

D. None

Answer: C

Watch Video Solution

84. A'-B'=.....

A. A-B'

B. A'-B

C. B-A

D. A-B

Answer: C

 Watch Video Solution

85. IF A={1,2,3}, B={3,4,5} then A Δ B=.....

A. {0}

B. {1,2}

C. {7}

D. None

Answer: D

 Watch Video Solution

86. A=ϕ, B=ϕ then A $\cup$ B=.....

A. μ

B. ϕ

C. can't be determined

D. None

Answer: B

 Watch Video Solution

87. $A \cap B = \phi$ then $n(A \cap B)$=.....

A. 7

B. 9

C. 3

D. None

Answer: D

Watch Video Solution

88. $A \cup B = A \cap B$ then.....

A. A=B

B. $A \neq B$

C. $A \subset B$

D. $B \subset C$

Answer: A

Watch Video Solution

89. A={5,10,15,20},B={10,12,15,30} then A-B=

A. {5,10,15,20}

B. {5,20}

C. {5,10}

D. none

Answer: D

 Watch Video Solution

90. A'=B then $A \cup B$= .....

A. A

B. μ

C. ϕ

D. None

Answer: B

Watch Video Solution

91. $\phi\Delta\phi$=.....

A. μ

B. ϕ

C. {0}

D. None

Answer: B

Watch Video Solution

92. $A \cup A=A$ is called.....law.

A. idempotent

B. inverse

C. complete

D. identity

Answer: A

Watch Video Solution

93. A $\cup$ B=B if.....

A. $A \supset B$

B. $A \subset B$

C. A=B

D. None

Answer: B

Watch Video Solution

94. $A=\phi, B=\phi$, then $A \cap B=$.....

A. {6,1}

B. {0}

C. μ

D. ϕ

Answer: D

Watch Video Solution

95. n(A)=10,n(B)=4,n(A ∩ B)=2 then n($A \cup B$)=

A. 11

B. 16

C. 10

D. 12

Answer: D

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96. $(A \cup B)' = \ldots\ldots\ldots$

A. $A' \cap B'$

B. $A' \cup B$

C. $A' \cap B$

D. $A \cap B$

Answer: A

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97. $(A-B) \cup (A-C) =$ .....

A. $(A-B) \cup C$

B. $(A-B) \cap C$

C. $(A-B)-C$

D. None

Answer: D

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98. n(A)=3 then number of proper subsets of A is.....

A. 10

B. 9

C. 7

D. 8

Answer: C

Watch Video Solution

99. $A \cap B=\phi$ then $B \cap A=$ .....

A. μ

B. A

C. ϕ

D. B

Answer: D

Watch Video Solution

100. $A \cup (B \cap C)=$ .....

A. $(A \cup B) \cap (A \cup C)$

B. $(A \cap B) \cup (A \cap C)$

C. $(A \cup B) \cap C$

D. None

Answer: A

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101. A={all primes less than 20}

B={ all whole numbers less than 10} then

$A \cap B$=.....

A. {2,3,5,7,10}

B. {2,8,9}

C. {2,3,5,7}

D. {2,4,6}

Answer: C

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102. if A and B are two sets.set A contains {2,3,4,11,13,15,17,18,19,20} and set B {2,3,4,15,18,20} then A-B

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103. $n(A \cup B)=51$, $n(A)=20$, $n(A \cap B)=13$, then $n(B)=$.....

A. 80

B. 44

C. 40

D. 39

Answer: B

Watch Video Solution

104. The identity element under $A \cap \mu$ of sets is.....

A. μ

B. {0}

C. A

D. None

Answer: C

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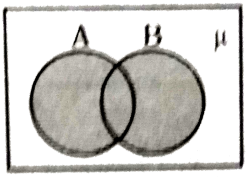
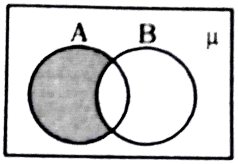
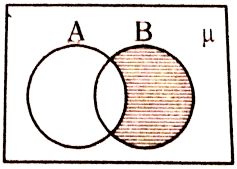
105. Which of the following represents A-B?

A. 

B. 

C. 

D. All

Answer: B

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106. $\mu \cup \phi$= .....

A. ϕ

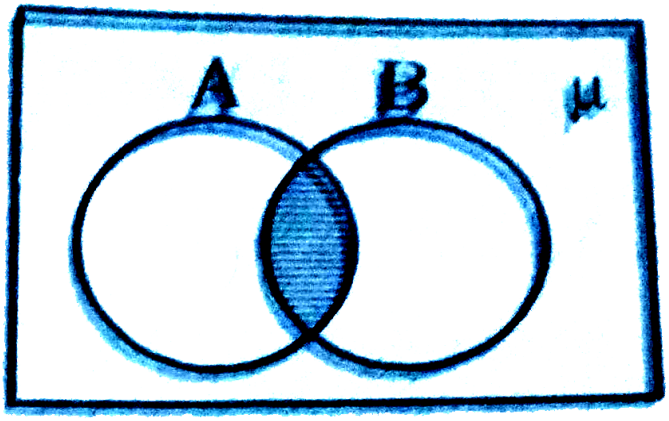
B. {0}

C. $\{\phi\}$

D. μ

Answer: D

Watch Video Solution

107. 

This Venn diagram represents.....

A. $A \cap B$

B. A-B

C. A $\cup$ B

D. A ΔB

Answer: A

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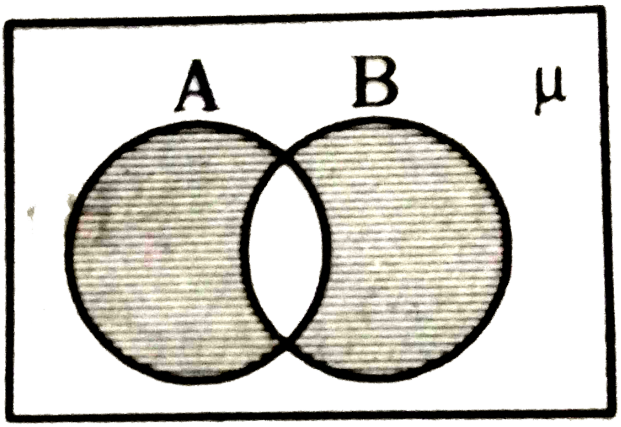
108. The given Venn diagram represents.....



A. $A \Delta B$

B. A-B

C. B-A

D. all

Answer: A

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109. $N \cap W =$ .....

A. Q

B. W

C. N

D. {0}

Answer: C

Watch Video Solution

110. IF A and B are disjoint sets then n (A $\cup$ B)= .....

A. n(A)-n(B)

B. n(A)+n(B)

C. $\frac{n(A)}{n(B)}$

D. None

Answer: B

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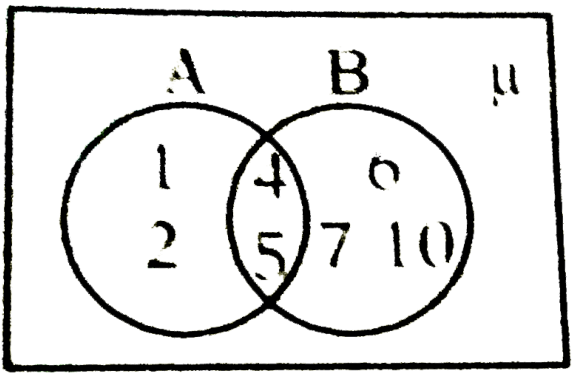
111. From the Venn diagram, $A \cup B$=.....



A. {1,2,3}

B. {1,2,4,5}

C. {6,7,10}

D. None

Answer: D

Watch Video Solution

112. Identity element under $A \cup \phi$ of sets is .....

A. {0}

B. μ

C. A

D. None

Answer: C

Watch Video Solution

113. Which of the following is true?

A. A-B $\neq$ B-A

B. $A \cup \phi = A'$

C. $\mu' = \mu$

D. all

Answer: A

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114. A is the set of factors of 12. Which are of the following is not a member of A?

A. 6

B. 3

C. 12

D. 5

Answer: D

 Watch Video Solution

115. IF the number of proper subsets of a given set is 31 then the set contains ..... elements.

A. 7

B. 6

C. 5

D. 10

Answer: C

 Watch Video Solution

116. The intersection of set of rational number and set of irrational numbers is .....

A. empty set

B. Natural numbers

C. Whole numbers

D. Integers

Answer: A

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