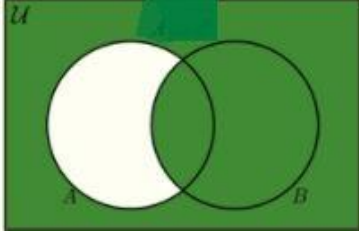


INDIAN SCHOOL AL WADI AL KABIR

Class XI, Mathematics *Worksheet- Sets*

30-05-2021

Q.1.	<i>Which of the following collection is not a set?</i>			
A	The collection of all natural numbers less than 100	B	The collection of all even integers.	
C	The collection of ten most talented writers of India.	D	The collection of all the months of a year.	
Q.2.	Roster form of $\{x: x \in Z: x^3 - x = 0\}$ is:			
A	$\{0, 1\}$	B	$\{1\}$	C $\{0, 1, -1\}$
D	\emptyset			
Q.3.	<i>Set builder form of $\{2, 3, 5, 7, 11, 13, 17\}$ is:</i>			
A	$\{x: x \text{ is a prime number} < 19\}$	B	$\{x: x = 2n + 1, n \in N, n \leq 8\}$	C $\{x: x = n^2 + 1, n \in N, n \leq 5\}$
D	None of these			
Q.4.	$A = \{0, 1\}, B = \{x: x \in N, x \leq 2\}, C = \{x: x \in W, x^2 - x = 0\}, D = \{1, -1\}$, thenand ... are equal sets.			
A	A and C	B	A and B	C B and C
D	A and D			
Q.5.	<i>Which of the following are disjoint sets?</i>			
A	Set of natural numbers, set of whole numbers	B	Set of integers, set of rational numbers	
C	Set of whole numbers, set of prime numbers	D	Set of odd numbers, set of even numbers	
Q.6.	If $A \subseteq B$, which of the following option is always correct?			
A	$A \cap B = B$	B	$A \cup B = A$	C $A - B = \emptyset$
D	$B - A = \emptyset$			
Q.7.	Two finite sets have m and n elements. The total number of subsets of the first set is 112 more than the total number of subsets of the second set. The values of m and n are:			
A	8 and 1	B	7 and 4	C 10 and 5
D	Can't find			
Q.8.	$4 \leq x \leq 5$ can write as:			
A	$(4, 5)$	B	$(4, 5]$	C $[4, 5]$
D	$[4, 5)$			

Q.9.	In the given Venn diagram, shaded portion represents						
	A $(A \cup B)'$	B $A' \cup B$	C $A - B$	D $B - A$			
Q10	If X and Y are two sets such that $X \cup Y$ has 50 elements, X has 28 elements and Y has 32 elements, how many elements does $X \cap Y$ have?						
	A 12	B 22	C 10	D 110			
Q.11	$A = \{1, 2\}$ and $B = \{x: x \in R, 0 < x < 3\}$. Then						
	A A and B are disjoint sets	B $A = B$	C $B \subset A$	D $A \subset B$			
Q12.	A college awarded 38 medals in football, 15 in basketball and 20 in cricket. If these medals went to a total of 58 men and only three men got medals in all the three sports, how many received medals in exactly two of the three sports.						
	A 18	B 10	C 27	D 9			
Q13	If $A = \left\{ \left(x, \frac{1}{x} \right) : x \in R - \{0\} \right\}$ and $B = \{(x, -x) : x \in R\}$, then						
	A $A \cap B = A$	B $A \cup B = A$	C $A \cap B = B$	D $A \cap B = \emptyset$			
Q14	A survey shows that 63% of the people who watch a news channel whereas 76% watch another news channel. If x% of the people watch both channel, then						
	A $X=35$	B $X=63$	C $39 \leq x \leq 63$	D $X=39$			
Q15	If $A = \{x: x \in N, 0 < x < 5\}$, $B = \{y: y \text{ is a prime number less than } 8\}$, then $B - A$						
	A $\{1, 4\}$	B $\{5, 7\}$	C $\{1, 2, 4\}$	D $\{2, 4, 5, 7\}$			
Q16	$A = \{x: x = 8^n - 7n - 1, n \in N\}$, $B = \{x: x = 49n - 49, n \in N\}$, then :						
	A $A \subset B$	B $B \subset A$	C $A = B$	D $A \cap B = \emptyset$			
Q17	Given: For two finite sets A and B, $n(A - B) = 10 + x$, $n(B - A) = 3x$ and $n(A \cap B) = x + 1$. If $n(A) = n(B)$, then the value of x.						
	A 5	B 11	C 15	D 20			

Q18	<p>In a survey conducted on a group of 1000 people it is found that 40% buy product A, 20% buy product B, and 10% buy Product C, 5% buy products A and B, 3% buy products B and C and 4% buy products A and C. If 2% of the group buy all the three products.</p> <p>Based on the above information, answer the following:</p>							
(i)	Find the number of people who buy product A only.							
	A.	330	B	400	C	370	D	300
(ii)	Find the number of people who buy at least one of the product A, B or C.							
	A	400	B	500	C	600	D	1000
(iii)	Find the number of people who buy exactly one of the product A, B or C.							
	A	120	B	60	C	100	D	700
ANSWER								
Answer	1	C	2	C	3.	A	4	A
	5	D	6	C	7	B	8	C
	9	B	10	C	11	D	12	D
	13	D	14	C	15	D	16	A
	17	A	18	A	18	C	18	B
		(i)		(ii)		(iii)		
