

RELATION & FUNCTION

1. If $U = \{1,2,3,4,5,6,7,8,9,3\}$, $A = \{2,4,6,8\}$ and $B = \{2,3,5,7\}$
verify that (i) $(A \cup B)' = A' \cap B'$ (ii) $(A \cap B)' = A' \cup B'$
2. Draw Venn diagram each of the following
(i) $(A \cup B)'$ (ii) $A' \cap B'$ (iii) $(A \cap B)'$
3. In a survey of 400 students in a school, 100 were listed as taking apple juice, 150 taking orange juice and 75 were listed taking both. How many students were taking neither apple juice nor orange juice.
4. There are 200 individuals with a skin disorder, 120 has been exposed to the chemical c_1 , 50 to chemical c_2 and 30 both c_1 and c_2 find
(i) chemical c_1 but not c_2 (ii) chemical c_2 not c_1
(iii) chemical c_1 or c_2
5. In a group of 70 people, 37 like coffee, 52 like tea and each person likes at least one of the two drinks. how many appeople like both.
6. In a survey of 60 People, It was found that 25 people read newspaper H, 26 read T, 26 read I, 9 read both H and I, 11 read Hand T, 8 read both T and I, 3 read all three find
(i) Number of people who read atleast one of the paper
(ii) Number of people who read exactly one.
7. In a survey it is found that 21 like product A, 26 like B, 29 like C If 14 like A and B, 12 like 'c' and 'A', 14 like B and c, 8 like all 3 find how many like c only.
8. If $(x/3+1, y-2/3) = (5/3, 1/2)$ find x & y.
9. Write the relation $R = \{(x, x^3): x \text{ is a prime number less than } 10\}$ in roster form.
10. Find domain of (i) $f(x) = -|x|$ (ii) $f(x) = \sqrt{9-x^2}$
(iii) $f(x) = (x^2+x+1)/(x^2-8x+12)$
and Range
11. Find $[f(1.1) - f(1)] / |1| - 1$ $f(x) = x^2$.
12. Find domain and range of
(i) $f(x) = \sqrt{x-1}$ (ii) $f(x) = |x-1|$.
13. Find domain of
(i) $f(x) = \sqrt{9-x^2}$

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Result Oriented

(DAILY PRACTICE PAPER)

[CLASS -11]

(ii) $f(x) = 1/x^2 - 2x - 3$

14. Find range of

(i) $f(x) = -|x|$

(ii) $f(x) = |x|$



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