EduSahara™ Assignment

Name : Operations on Sets

Chapter : Sets

Grade : ICSE Grade VIII

License : Non Commercial Use

1. If A = {4,3,2} and B = {0,1,5} , then A ∪ B =

   (i) {1,3,4,2,5} (ii) {5,3,0,2,4,1} (iii) {2,0,3,4,1,9,5} (iv) {5,3,1,2,0} (v) {2,6,0,3,5,1}

2. If A = {9,2,10,8} and B = {9,4,2,10} , then A ∪ B =

   (i) {2,4,8,10,9} (ii) {9,4,8,2} (iii) {9,2,8,15,10} (iv) {2,10,8,4,9,12} (v) {}

3. If A = {8,2,3} , B = {4,0,14} and C = {14,10,13} , then A ∪ (B ∪ C) =

   (i) {10,4,3,8,0,2,13,16,14} (ii) {0,10,3,14,13,4,2} (iii) {13,8,2,14,3,10,4,0} (iv) {13,3,10,0,14,8,2}

   (v) {8,4,0,10,14,3,2}

4. If A = {8,12,10} , B = {14,10,4} and C = {13,0,4,2} , then A ∪ (B ∪ C) =

   (i) {14,2,13,12,8,10,4} (ii) {8,0,12,13,10,19,4,2,14} (iii) {2,8,10,12,13,0,14,4} (iv) {13,8,2,0,12,4,10}

   (v) {0,14,8,13,10,2,4}

5. If A = {3,9,5} and B = {9,2,6} , then A ∩ B =

   (i) {9,3} (ii) {3,9,6} (iii) {9,12} (iv) {2,9} (v) {9}

6. If A = {4,2,1,10,8} and B = {0,10,5,1,7} , then A ∩ B =

   (i) {13,10,1} (ii) {1,2,10} (iii) {1,10} (iv) {10,1,4,8} (v) {1,10,7}

7. If A = {3,2,4,14,1,10,5} and B = {5,12,0,13,1,15,9} , then A ∩ B =

   (i) {1,5,0} (ii) {5,1} (iii) {1,9,14,5} (iv) {1,5,18} (v) {10,5,1}

8. If A = {6,3,4} and B = {7,3,8} , then B ∩ A =

   (i) {3,8} (ii) {3,4} (iii) {3,7,4} (iv) {14,3} (v) {3}

9. If A = {5,3,4,6,10} and B = {5,6,4,1,9} , then B ∩ A =

   (i) {5,4,6,10} (ii) {4,6,9,5,10} (iii) {6,15,4,5} (iv) {6,5,4,1} (v) {4,6,5}

10. If A = {0,5,2,11,7,3,10} and B = {0,7,9,4,12,11,2} , then B ∩ A =

    (i) {2,11,7,0} (ii) {11,0,5,7,2} (iii) {0,7,4,11,2} (iv) {3,5,2,0,7,11} (v) {2,0,18,7,11}

11. If A = {1,14,6,10,3,4} , B = {8,0,15,14,3,13} and C = {12,6,11,2,5,7}, then A ∩ (B ∩ C) =

    (i) {} (ii) {8} (iii) {19} (iv) {4} (v) {12}

12. If A = {3,4,7,9} and B = {6,0,8,9} , then A − B =

    (i) {0,8,6} (ii) {3,4,9,7} (iii) {3,7,4} (iv) {7,3} (v) {4,7,13,3}

13. If A = {15,13,11,0,7} and B = {11,0,9,12,7} , then A − B =

    (i) {13,15} (ii) {12,9} (iii) {15} (iv) {15,7,13} (v) {15,16,13}

14. If A = {7,4,8,10} and B = {2,3,4,10} , then B − A =

(i) {3,4,2} (ii) {3} (iii) {} (iv) {2,15,3} (v) {3,2}

15. If A = {3,9,15,5,14} and B = {12,0,8,2,14} , then B − A =

(i) {} (ii) {12,2,0} (iii) {2,0,8,12} (iv) {14,8,12,2,0} (v) {0,2,8,17,12}

16. The symmetric difference of set A = {9,4,1,0,11,3} and set B = {5,1,9,13,8,3} is

(i) {11,0,1,8,5,13,4} (ii) {4,13,5,8,0} (iii) {11,4,0} (iv) {8,13,5} (v) {4,11,8,0,13,5}

17. If A = {-9,3,4,6,-4} and μ = {-9,3,4,6,-4,0,9,5}, find A ∪ A

(i) {6,-9,4,-4,3} (ii) {2,3,4,-9,6,-4,-1} (iii) {4,-9,9,3,-4} (iv) {4,6,-4,-9} (v) {-9,6,4,-4,8}

18. If A = {-3,-9,-5} and μ = {-3,-9,-5,-7,3}, find A ∪ ∅

(i) {-9,-3,1,-5,0} (ii) {-8,-6,-7} (iii) {-9,-3} (iv) {} (v) {-3,-5,-9}

19. If A = {-7,3,2,1,5,7,-1} and μ = {-7,3,2,1,5,7,-1,8,-4,-9,-3}, find A ∪ μ

(i) {9,-1,2,-9,-7,7,3,-4,6,-3,1} (ii) {8,-7,1,-3,5,-4,3,2,-1,-9} (iii) {-1,7,-4,5,-9,3,1,8,2,-7,-3} (iv) {}

(v) {-1,0,-4,7,2,-9,-3,8,3,-7,1,4,5}

20. If A = {-3,-5,7} and μ = {-3,-5,7,0,-1}, find A ∩ A

(i) {-3,-2,10} (ii) {-5,-3} (iii) {-3,-5,7} (iv) {0,7,-3} (v) {-3,3,7,-5,2}

21. If A = {-7,-2,-4} and μ = {-7,-2,-4,-1,5}, find A ∩ ∅

(i) {} (ii) {5} (iii) {2} (iv) {-1,4}

22. If A = {-3,-6,5,-7,-8,8,4} and μ = {-3,-6,5,-7,-8,8,4,3,6,-9,9}, find A ∩ μ

(i) {5,4,-7,-8,8,-6,-3} (ii) {-3,8,5,4,-8,-6} (iii) {-7,5,12,-8,-3,4,-6} (iv) {8,-6,-10,2,-9,4,5}

(v) {5,-7,4,-3,-8,3,-6,8,0}

23. If A = {9,3,-1} and μ = {9,3,-1,-4,-3}, find A'

(i) {-3} (ii) {0,-4,-3,4} (iii) {-4,1} (iv) {1,-10} (v) {-3,-4}

24. If A = {0,-1,7,-7,9,5} and μ = {0,-1,7,-7,9,5,-3,-4,-9,-6}, find A ∪ A'

(i) {7,-1,-7,1,0,-9,5,-6,-3,2,9,-4} (ii) {0,7,-6,9,-4,5,-7,-9,-1} (iii) {0,-7,9,-4,-1,-10,7,5,-11,-3}

(iv) {-7,-4,-6,5,-9,-1,9,0,-3,7} (v) {-3,-9,5,-6,-7,9,7,0,-2,-4}

25. If A = {9,-2,0,7,8} and μ = {9,-2,0,7,8,-9,3,2}, find A ∩ A'

(i) {} (ii) {-1,4} (iii) {1} (iv) {3} (v) {0}

26. If A = {1,-5,-1,-8,-2} and μ = {1,-5,-1,-8,-2,7,-4,2}, find (A')'

(i) {-1,-5,-8,-2,1} (ii) {2,1,-8,4,-5,-1,-2} (iii) {-1,-8,-5,-2} (iv) {-1,3,1,-8,-5} (v) {6,0,-8,1,-5}

27. If μ = {8,7,-9,0,-7,15,14,-2,5,6,-8,3,-4,9,-1,2,4,10,-5,-6},A = {8,7,-9,0,-7,15,14,-2}, B = {5,6,14,-8,-9,7,3}, C = {-4,5,7,8,9,-1,2,0,4,15}, find A ∩ B ∩ C

(i) {7} (ii) {-7} (iii) {} (iv) {0} (v) {7,-7}

28. If μ = {1,-5,-9,5,3,-6,-1,2,-8,11,13,-3,10,4,6,-7,0,-2,9},A = {1,-5,-9,5,3,-6,-1,2}, B = {-8,11,13,5,-3,3,10,4}, C = {-6,6,-7,2,0,-1}, find A ∪ (B ∩ C)

(i) {2,3,-9,-5,-1,1,-6} (ii) {2,-9,5,-5,-1,1,-6,13} (iii) {2,3,-9,5,-5,-1,1,-6,13} (iv) {2,3,-9,5,-5,-1,1,-6}

(v) {2,-9,5,-5,-1,1,-6}

29. If μ = {7,15,10,12,6,-1,0,14,-5,-9,3,8,13,11,-4,-3,-7,2,-8,-2,5,-6},A = {7,15,10,12,6,-1,0,14}, B = {12,-5,-9,3,14,8,13,11}, C = {14,8,15,7,-4,-1,11,13}, find B ∪ (C ∩ A)

(i) {12,15,-9,11,7,3,13,8,14,-5,-1} (ii) {12,15,-9,11,7,3,13,8,14,-5} (iii) {12,15,-9,11,7,3,13,8,14,-5,-1,-7}

(iv) {12,15,11,7,3,13,8,14,-5,-1,6} (v) {12,15,-9,11,7,3,13,8,14,-5,-7}

30. If μ = {15,10,-6,-7,-9,3,-1,9,-3,-2,-5,5,-8,7,13,1,11,4,14,12,2},A = {15,10,-6,-7,-9,3,-1,9}, B = {-3,15,-2,-5,5,10,-7,-8,7}, C = {9,-7,13,15,1,11,4}, find C ∪ (A ∩ B)

(i) {-7,4,10,1,9,15,13,11} (ii) {-7,4,10,1,9,13,11} (iii) {-7,4,10,1,9,15,13,11,5} (iv) {-7,4,1,9,15,13,11}

(v) {-7,4,10,1,9,13,11,5}

31. If μ = {14,-8,6,9,7,-9,-3,1,10,3,15,0,5,11,-4,2,-7,12,-5,13,4},A = {14,-8,6,9,7,-9,-3,1,10}, B = {6,1,3,10,15,-8,-9}, C = {0,1,-3,7,5,6,11,10}, find A ∩ (B ∪ C)

(i) {-9,1,-8,-3,7,6,14} (ii) {10,-9,1,-8,-3,7,6,14} (iii) {-9,1,-8,-3,7,6} (iv) {10,1,-8,-3,7,6}

(v) {10,-9,1,-8,-3,7,6}

32. If μ = {-6,1,17,-3,15,6,5,4,-9,8,14,-2,9,-5,16,11,10,13,12,2,7,-7,0},A = {-6,1,17,-3,15,6,5,4}, B = {17,-9,8,14,-2,-6,1,9,-5,16}, C = {6,-2,11,1,10,13,12,-6}, find B ∩ (C ∪ A)

(i) {1,17,-6,-2} (ii) {1,17,-2} (iii) {17,-6,-2,0} (iv) {17,-6,-2} (v) {1,17,-6,-2,0}

33. If μ = {-9,12,6,-2,4,7,11,-1,-6,-4,-3,13,3,2,0,5,8,-8,-7,1,14},A = {-9,12,6,-2,4,7}, B = {11,-1,-6,12,6,-4,4,-3,13,3}, C = {2,0,5,-3,7,13,-4}, find C ∩ (A ∪ B)

(i) {-3,-4,13,7} (ii) {-4,13,7} (iii) {-3,-4,13,6} (iv) {-3,-4,13} (v) {-3,-4,13,7,6}

Assignment Key

1) (ii)	2) (i)	3) (iii)	4) (iii)	5) (v)	6) (iii)
7) (ii)	8) (v)	9) (v)	10) (i)	11) (i)	12) (iii)
13) (i)	14) (v)	15) (iii)	16) (v)	17) (i)	18) (v)
19) (iii)	20) (iii)	21) (i)	22) (i)	23) (v)	24) (iv)
25) (i)	26) (i)	27) (i)	28) (iv)	29) (i)	30) (i)
31) (v)	32) (i)	33) (i)			

Copyright © Small Systems Computing Pvt. Ltd.