EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Sets

Grade : ICSE Grade VII

1. If μ = {8,5,0,9,1,2,-8,3,6,7,-7,-9,4,-5,-4}, A = {8,5,0,9,1} and B = {9,2,-8,3,6,1,0}, find ((A − B) ∪ (B − A))'

   (i) {-4,-7,9,-5,1,7,4,0} (ii) {} (iii) {0,7,1,4,-7,-9,-4,-5,9} (iv) {-4,-7,-9,4,9,-5,7,1}

2. If μ = {6,5,8,1,-7,-3,7,-8,-9,-6,4,3}, A = {6,5,8,1} and B = {6,-7,-3,7,-8}, find B

   (i) {6,-3,4,7,-8} (ii) {3,-7,-8,6,7,-3} (iii) {-3,-7,-8,7} (iv) {-8,-3,6,7,-7} (v) {-3,-7,6,-8}

3. Which of the following is not a subset of A = {4,1,7,6,3,0,2,9,5}?

   (i) {5,6,3,1,9,0,2} (ii) {4,1,7,6,3,0,2,9,5} (iii) {0,4,3,6,1,7,2,5} (iv) {8,7,0,9,3,6,5,1} (v) {4,0,6,2,3,9,1,5}

4. If μ = {-2,-7,-3,-8,-6,-5,-4,-9,9,8,0,3}, A = {-2,-7,-3,-8} and B = {-7,-6,-5,-4,-9}, find (A ∪ B) − (A ∩ B)

   (i) {-5,-2,0,-3,-4,-6,-8} (ii) {-5,-2,-6,-9,-3,-4,-8} (iii) {-2,-9,-3,-4,-8,-6} (iv) {-9,-6,-5,-8,-4,-2}

   (v) {-8,-6,-2,-3,9,-9,-4,-5}

5. If μ = {-9,-6,3,-1,2,8,6,7}, A = {-9,-6,3} and B = {-1,3,2}, find n(A ∩ B)

   (i) 1 (ii) 0 (iii) 3 (iv) (-1) (v) 2

6. If A = {g,l,s,k,m}, which of the following are true?

   a) $k \notin A$
   b) $k \in A$
   c) $A \supset k$
   d) $\{l\} \subset A$
   e) $k \subset A$

   (i) {c,d} (ii) {c,d,b} (iii) {e,a,b} (iv) {a,b} (v) {b,d}

7. If μ = {-1,-8,-4,-9,-5,4,0,1,-3,8,-6,5}, A = {-1,-8,-4} and B = {-9,-5,4,0,1,-3,8}, find (A ∩ B)'

   (i) {-1,-6,-8,5,-5,0,-3,8,1,-4,-9} (ii) {0,-4,5,-6,-9,-1,-8,1,4,8,-5} (iii) {} (iv) {-4,8,-6,-3,1,-1,4,-9,0,-5,5}

   (v) {-1,1,-9,-6,0,5,4,-4,-5,8,-8,-3}

8. If A = {9,1,15} , B = {14,3,0} and C = {10,0,13,4} , then C ∪ (A ∪ B) =

   (i) {0,3,13,9,4,1,10,15} (ii) {3,4,17,13,9,1,14,10,15,0} (iii) {4,14,3,13,1,9,15,0} (iv) {9,13,14,3,0,4,10,15}

   (v) {3,10,14,13,1,15,4,9,0}

9. If μ = {-5,1,-2,4,-9,8,-1,-6,-3,-7,2,7,3}, A = {-5,1,-2,4,-9} and B = {8,-1,-5,1,-6}, find n(A' ∪ B')

   (i) 10 (ii) 12 (iii) 9 (iv) 11 (v) 14

10. If A = {9,4,5,10} and B = {9,6,4,0} , then B ∪ A =

    (i) {5,6,10,0,9,4} (ii) {5,6,10,0,9} (iii) {0,6,9,4,11,5,10} (iv) {10,11,9,0,5,6} (v) {0,4,6,5,9}

11. Which of the following is 'intersection' symbol?

    (i) ↔ (ii) ⊄ (iii) ∩ (iv) ⊇ (v) ∉

12. If μ = {-9,1,-7,5,-3,6,2,-8,3,8,0,4,9,-5,-4,-6}, A = {-9,1,-7,5,-3,6} and B = {2,-7,-8,6,5,3}, find A'

(i) {8,-8,2,-5,-4,4,-6,9,3,0} (ii) {8,0,2,3,-5,-8,9,-6,-4} (iii) {-6,3,2,0,9,8,-4,4,-5} (iv) {}

13. Which of the following elements belong to the set {8,5,10,9,2}?

(i) (-3) (ii) 13 (iii) 9 (iv) 14 (v) (-2)

14. If μ = {-6,7,4,-1,-5,9,-7,2,8,0,-8,-9,3,6,5,-3,1}, A = {-6,7,4,-1,-5,9,-7} and B = {9,2,-5,8,0,-1}, find A ∪ B

(i) {-1,-5,8,9,-6,4,0,7,2,-7} (ii) {-6,9,2,-1,8,7,-7,0,4} (iii) {0,4,7,-1,-5,9,2,8,-7,5,-6}

(iv) {0,9,8,-5,-6,-7,-1,7,3,2} (v) {-5,-1,8,7,4,2,-6,0,9}

15. If A = {2,14,3,4,1} and B = {6,4,2,10,9} , then A ∪ B =

(i) {1,3,2,14,4,6,9} (ii) {9,10,16,3,1,6,14,4,2} (iii) {14,2,1,4,10,16,6,9} (iv) {6,10,9,14,1,2,4,3}

(v) {9,2,1,6,10,14,3}

16. Which of the following are null sets?

a) {empty}
b) {}
c) {∅}
d) {1,4,7}
e) ∅

(i) {c,e} (ii) {a,b} (iii) {b,e} (iv) {d,a,b} (v) {c,e,b}

17. If A = {9,2,12} , B = {10,0,9} and C = {8,12,7} , then B ∪ (C ∪ A) =

(i) {12,9,7,8,0,10} (ii) {2,8,7,10,9,12} (iii) {12,9,2,0,10,7,8} (iv) {8,9,2,19,7,0,12,10}

(v) {2,10,12,7,0,9}

18. Which of the following is superset of A = {7,1,9,3,8}?

(i) {1,8,3} (ii) {8,1,5,7,9} (iii) {9,4,1,3,8,7} (iv) {7,9,3,8,0} (v) {1,7,8,3}

19. Which of the following is the power set of A = {7} ?

(i) {} (ii) {{}{7}} (iii) {{}} (iv) {5,7} (v) {{}{7}{5}}

20. Which of the following elements does not belong to the set {5,8,3,7,9}?

(i) 10 (ii) 7 (iii) 3 (iv) 5 (v) 9

21. If μ = {8,-2,-7,-3,-5,3,6,9,0,-4,-9,-1,4}, A = {8,-2,-7,-3,-5} and B = {3,6,-2,9,-3}, find n((A ∩ B)')

(i) 11 (ii) 8 (iii) 10 (iv) 14 (v) 12

22. If A = {14,12,9,1,7} and B = {14,0,12,9,7} , then A − B =

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

23. If μ = {8,-7,4,5,7,2,6,-9,0,-4,-8,-2,1}, A = {8,-7,4,5,7,2} and B = {6,5,2}, find (B − A)'

(i) {-7,0,-2,8,-9,-8,1,5,-4,7,2} (ii) {1,-4,8,4,0,7,-9,-2,-8,5,-7} (iii) {} (iv) {5,-2,7,-9,2,1,-4,4,8,-7,0,-8}

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

24. Given sets A, B and C, where $A \subset B \subset C$, which of the following are true?

a) $\emptyset \subset B$
b) $C \subset A$
c) $B \supset A$
d) $C \supset B$
e) $B \subset A$

(i) {e,c} (ii) {b,e,d} (iii) {b,a,c} (iv) {b,a} (v) {a,c,d}

25. Which of the following is an infinite set?

(i) {-7} (ii) {} (iii) {0,1,2,3,4,...} (iv) {-3,4} (v) {-4,8,-1}

Assignment Key

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