EduSahara™ Worksheet

Name : Chapter Based Worksheet

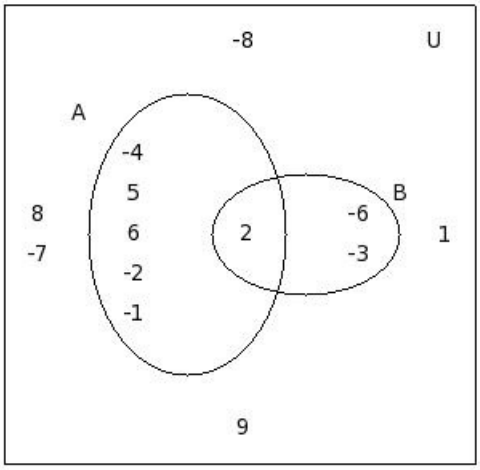
Chapter : Venn Diagrams

Grade : ICSE Grade VII

1. In a class of 32 students, if 5 students read 'The Hindu', 17 students read 'Hans India' and 2 students read both the news papers, how many do not read any of the news papers ?

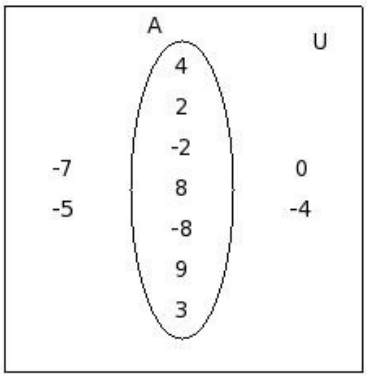
   (i) 15 (ii) 12 (iii) 10 (iv) 13 (v) 11

2. Find n((A − B) ∪ (B − A))



   (i) 10 (ii) 6 (iii) 4 (iv) 7 (v) 8

3. Find (A')'



   (i) {10,2,-1,0,5,3,9,-7} (ii) {3,-7,10,-1,0,9} (iii) {8,4,-8,3,-2,9} (iv) {8,3,9,4,-8,0} (v) {-8,4,8,9,2,-2,3}

4. In a class of 25 students, if 12 students like 'Listening music', 21 students like 'Playing' and 10 students like both the activities, how many do not like any of the activities ?

   (i) 1 (ii) 3 (iii) 4 (iv) (-1) (v) 2

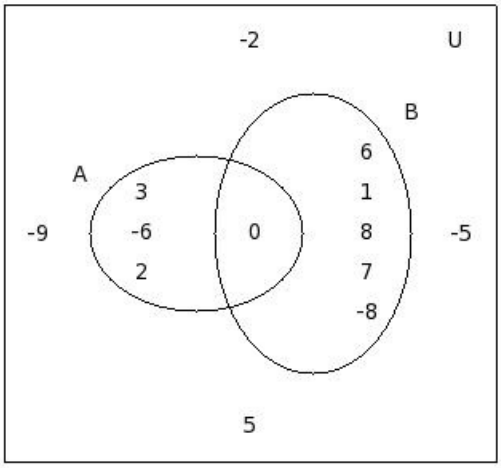
5. In a class of 28 students, if 13 students prefer 'Scooter', 16 students prefer 'RTC Bus' and 7 students prefer both the modes of transport, how many prefer 'Scooter' only ?

   (i) 7 (ii) 4 (iii) 6 (iv) 8 (v) 5

6. In a class of 26 students, if 6 students like 'volleyball', 5 students like 'basketball' and 3 students like both the games, how many like 'volleyball' only ?

   (i) 2 (ii) 3 (iii) 6 (iv) 4 (v) 1

7. Find B − A

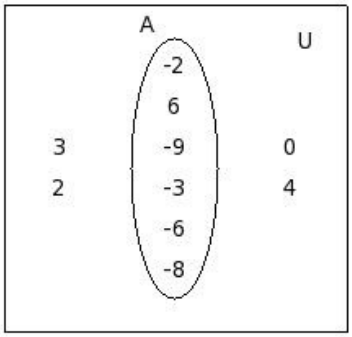


(i) {} (ii) {8,-8,6,1,7} (iii) {-8,1,6,-9,8,7} (iv) {1,7,8,6,-5} (v) {6,-8,7,1}

8. In a class of 28 students, each one prefers either 'RTC Bus' or 'Car' or both. If 24 students prefer 'RTC Bus' and 28 students prefer 'Car', how many prefer 'RTC Bus' only?

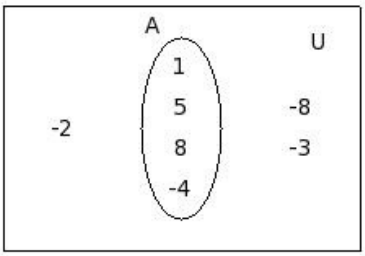
(i) 2 (ii) 1 (iii) (-1) (iv) (-2) (v) 0

9. Find n(A ∪ A)



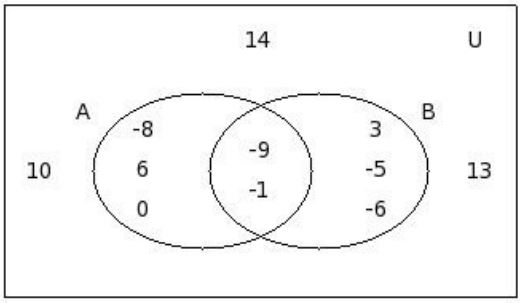
(i) 3 (ii) 5 (iii) 8 (iv) 6 (v) 7

10. Find n(μ)



(i) 8 (ii) 5 (iii) 6 (iv) 7 (v) 9

11. A ∩ B =



(i) {-1,6,-9} (ii) {14,-9,-1} (iii) {-9,0,3,-1} (iv) {-9,-1} (v) {-6,-9,-1}

12. Which of the following diagrams represent equivalent sets?

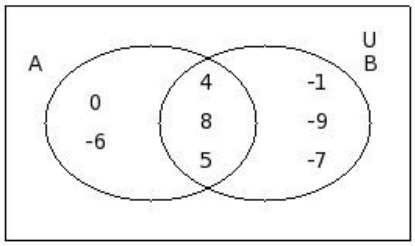


figure 1

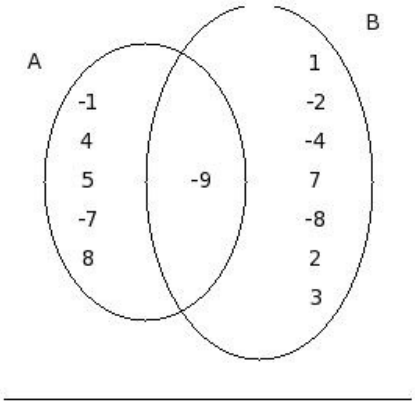


figure 2

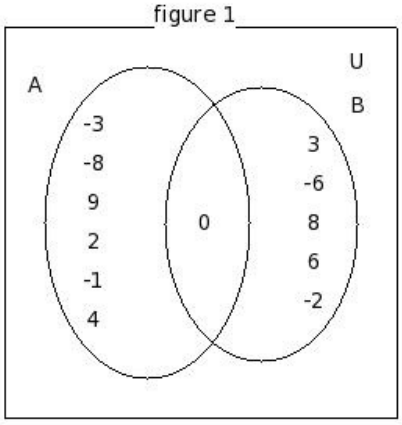


figure 3

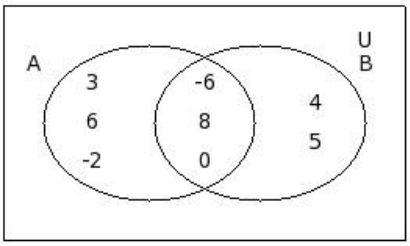


figure 4

(i) figure 1 (ii) figure 4 (iii) figure 2 (iv) None of the above (v) figure 3

13. In a class of 35 students, if 5 students prefer 'School Van', 30 students prefer 'By Foot' and 4 students prefer both the modes of transport, how many do not prefer any of the modes of transport ?

(i) 3 (ii) 5 (iii) 1 (iv) 7 (v) 4

14. In a class of 30 students, each one likes either 'Reading books' or 'Listening music' or both. If 29 students like 'Reading books' and 27 students like 'Listening music', how many like 'Reading books' only?

(i) 3 (ii) 4 (iii) 0 (iv) 2 (v) 5

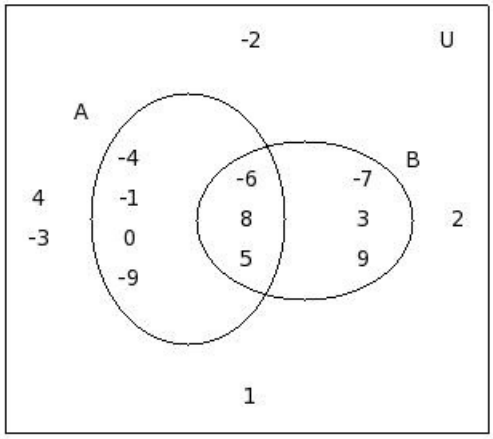
15. In a class of 20 students, each one likes either 'Painting' or 'Singing' or both. If 17 students like 'Painting' and 12 students like 'Singing', how many like 'Singing' only?

(i) 5 (ii) 3 (iii) 0 (iv) 4 (v) 2

16. In a class of 30 students, if 23 students like 'Dancing', 18 students like 'Watching TV' and 12 students like both the activities, how many like 'Watching TV' only ?

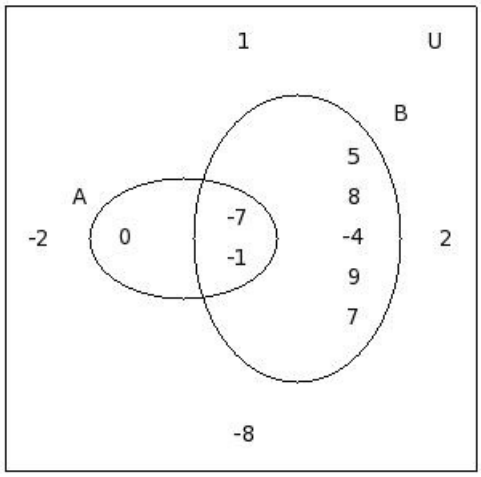
(i) 4 (ii) 9 (iii) 6 (iv) 7 (v) 5

17. Find n(B')



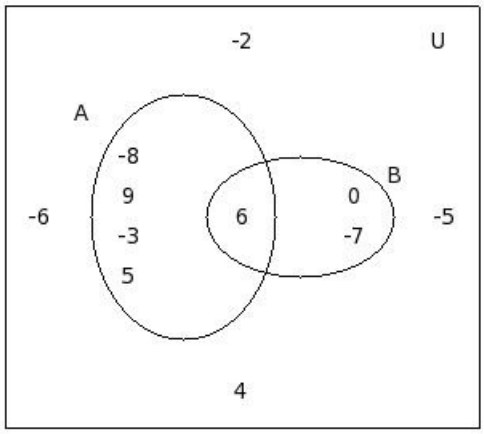
(i) 6 (ii) 8 (iii) 9 (iv) 11 (v) 10

18. Find n((A − B)')



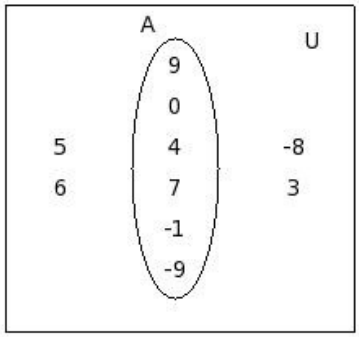
(i) 11 (ii) 9 (iii) 14 (iv) 12 (v) 10

19. Find B



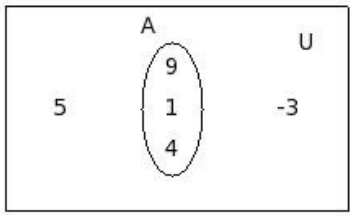
(i) {6,-7} (ii) {4,0,-7,6} (iii) {-7,0,6} (iv) {-7,6,4} (v) {0,-7}

20. Find A'



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

21. Find μ



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

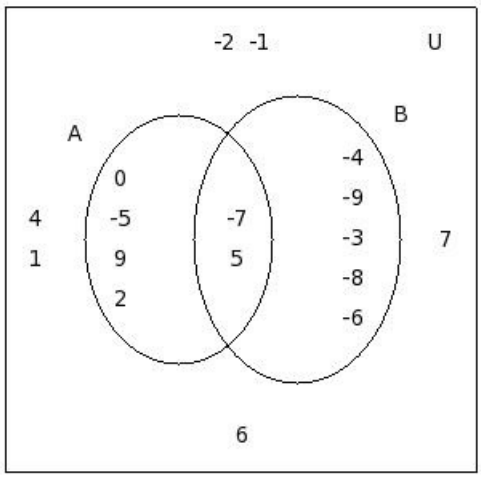
22. In a class of 35 students, if 5 students study 'German', 12 students study 'Physics' and 2 students study both the subjects, how many study 'Physics' only ?

(i) 8 (ii) 11 (iii) 10 (iv) 9 (v) 12

23. In a class of 27 students, each one likes either 'volleyball' or 'basketball' or both. If 14 students like 'volleyball' and 26 students like 'basketball', how many like 'basketball' only?

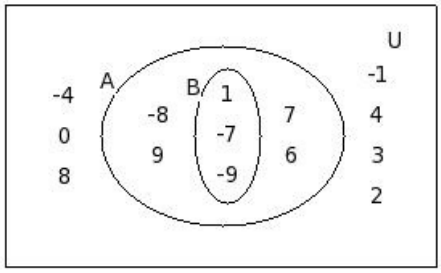
(i) 11 (ii) 14 (iii) 12 (iv) 13 (v) 15

24. Find n(B' ∩ A')



(i) 5 (ii) 6 (iii) 8 (iv) 7 (v) 3

25. Find A' ∩ B'



(i) {} (ii) {3,-4,-1,8,2,4,0} (iii) {-1,2,-4,0,8,4}

Assignment Key

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