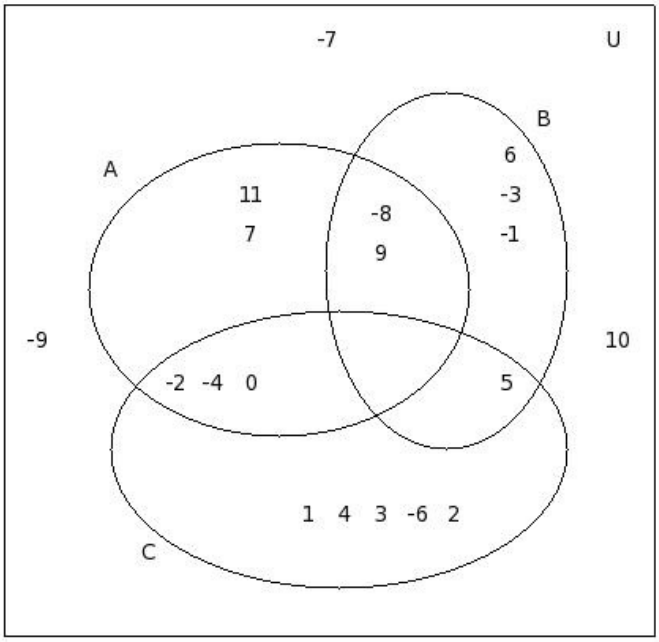
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Venn Diagrams

Grade : ICSE Grade VIII

1. Find A − (A ∩ (B ∩ C))



(i) {-2,-8,11,-4,9,7,3} (ii) {-2,-8,11,-4,9,0,7,3} (iii) {-8,11,-4,9,0,7,-7} (iv) {-2,-8,-4,9,0,7}

(v) {-2,-8,11,-4,9,0,7}

2. Which of the following diagrams represent equal sets?

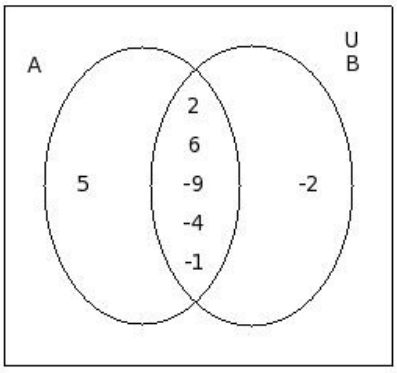


figure 1

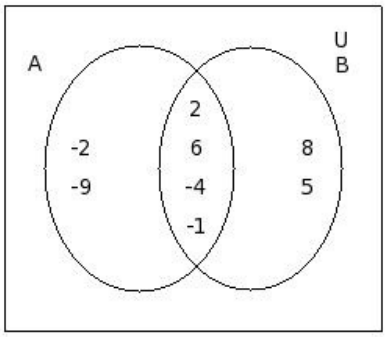


figure 2

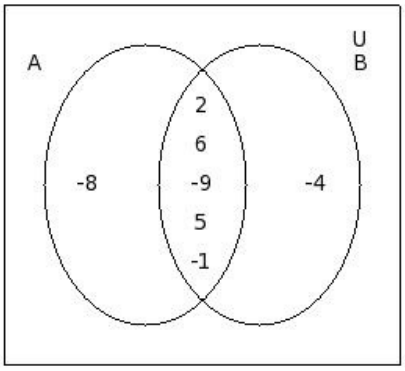


figure 3

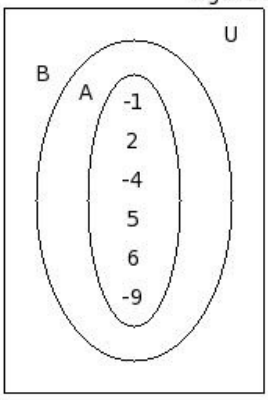
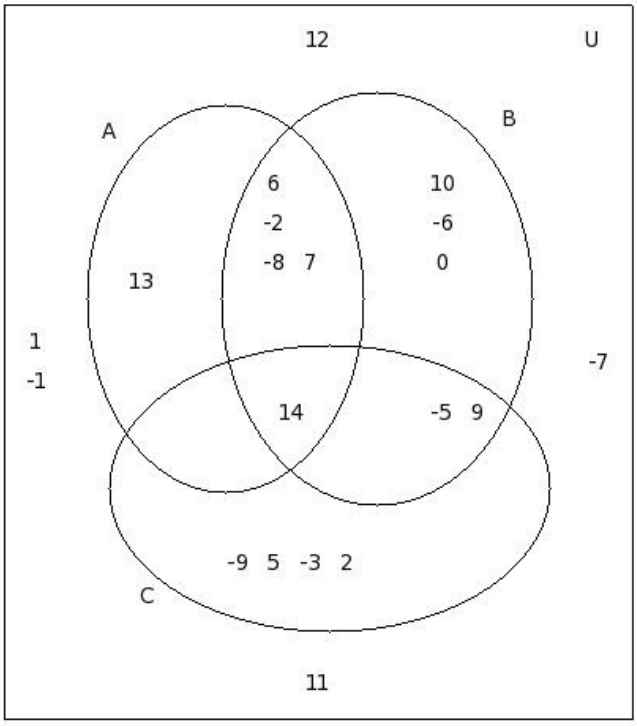


figure 4

(i) figure 2 (ii) figure 1 (iii) figure 4 (iv) figure 3

3. Find (B ∩ C)'



(i) {12,13,7,10,6,-1,2,-2,-8,-9,-3,1,-6,11,5,-7,0} (ii) {12,13,7,10,6,-1,2,-2,-8,-9,-3,1,-6,11,-7,0,9}

(iii) {12,13,7,10,6,-1,2,-2,-8,-9,-3,1,-6,5,-7,0,-5} (iv) {12,13,7,10,6,-1,2,-8,-9,-3,1,-6,11,5,-7,0}

(v) {12,13,7,10,6,-1,2,-2,-8,-9,-3,1,-6,11,5,-7,0,9}

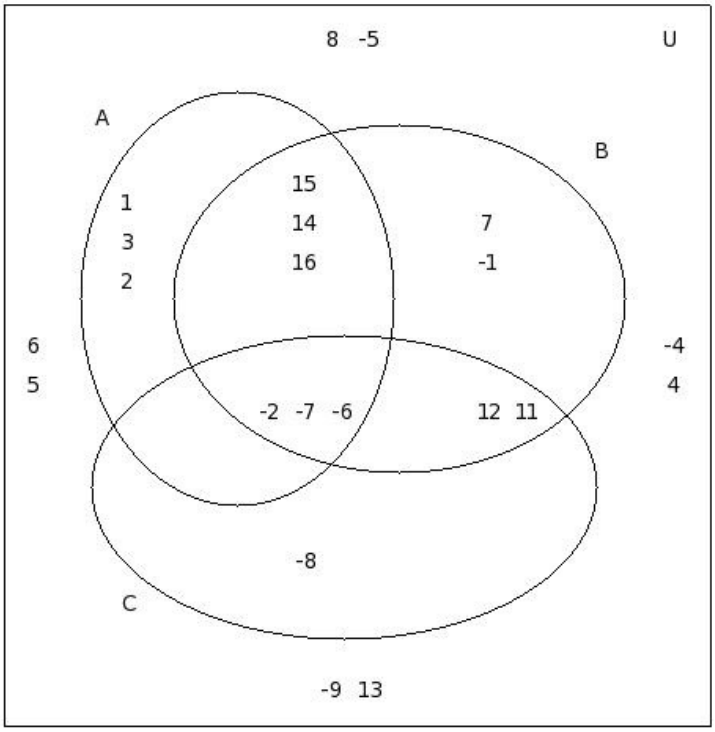
4. In a class of 33 students, 25 students like 'Dancing', 25 students like 'Listening music', 26 students like 'Watching TV', 20 students like 'Dancing' and 'Listening music', 21 students like 'Listening music' and 'Watching TV', 20 students like 'Watching TV' and 'Dancing', 17 students like all the three activities. How many of them like only 'Dancing'?

(i) 2 (ii) 3 (iii) 1 (iv) 4 (v) 0

5. In a class of 35 students, 20 students like 'Helping parents', 30 students like 'Community work', 17 students like 'Watching TV', 17 students like 'Helping parents' and 'Community work', 14 students like 'Community work' and 'Watching TV', 11 students like 'Watching TV' and 'Helping parents', 9 students like all the three activities. How many of them like more than one activity?

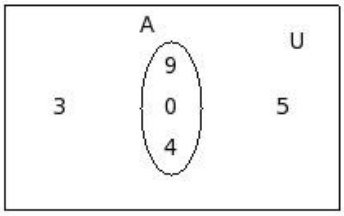
(i) 24 (ii) 25 (iii) 26 (iv) 23 (v) 22

6. Find n(C − (A ∩ B))



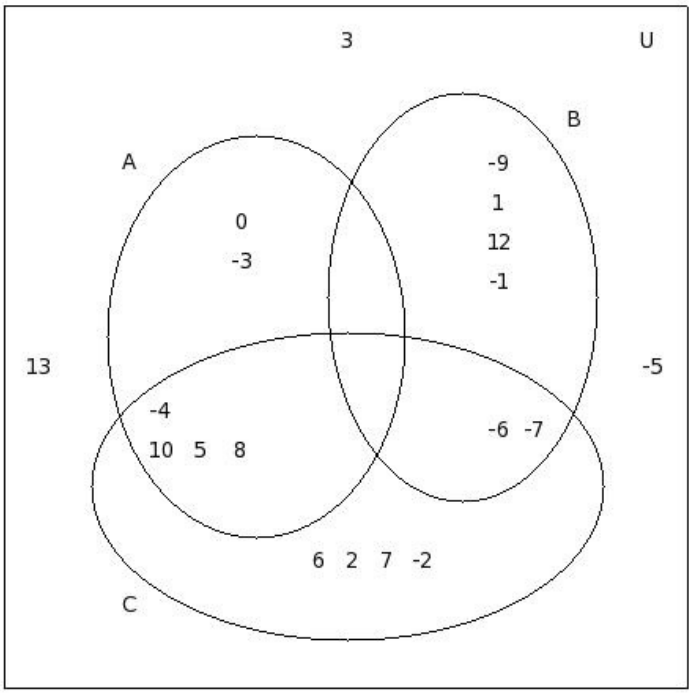
(i) 5 (ii) 3 (iii) 1 (iv) 4 (v) 2

7. Find n(A ∪ A)



(i) 4 (ii) 3 (iii) 6 (iv) 0 (v) 2

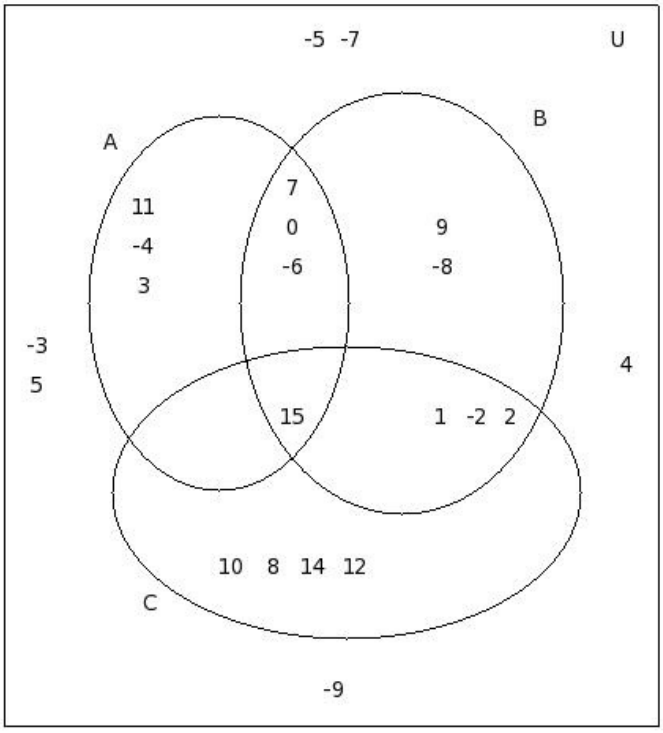
8. Find C'



(i) {3,1,-1,13,-3,-5,0,-9,12} (ii) {3,-1,13,-3,-5,0,-9,12} (iii) {3,1,-1,13,-3,0,-9,12,-6}

(iv) {3,1,-1,13,-3,-5,0,-9,12,-2} (v) {3,1,-1,13,-3,0,-9,12,-2}

9. Find C ∪ A

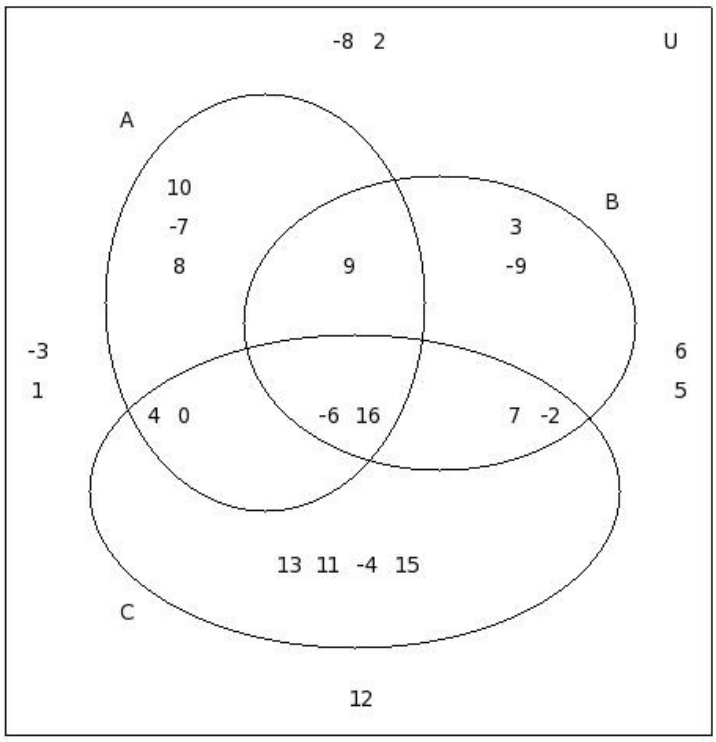


(i) {11,14,10,15,8,-2,12,0,3,2,1,-6,-4} (ii) {11,14,10,15,8,-2,7,12,0,3,2,1,-6,-4,-3}

(iii) {11,14,10,15,8,-2,7,12,0,3,1,-6,-4,-3} (iv) {11,14,10,15,8,-2,7,12,0,2,1,-6,-4,-9}

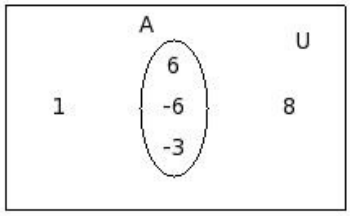
(v) {11,14,10,15,8,-2,7,12,0,3,2,1,-6,-4}

10. Find n((A ∩ B) ∪ (A ∩ C))



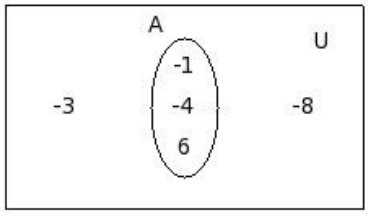
(i) 7 (ii) 6 (iii) 5 (iv) 4 (v) 2

11. Find (A')'



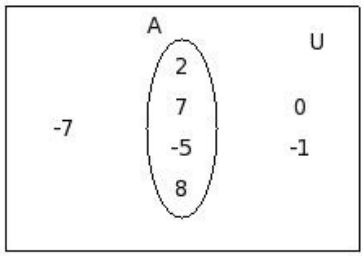
(i) {8,5,1,-9} (ii) {-3,6,-6} (iii) {8,-9} (iv) {6,-3} (v) {-3,8}

12. Find n(A ∪ A')



(i) 7 (ii) 5 (iii) 3 (iv) 6 (v) 4

13. Find n(A)

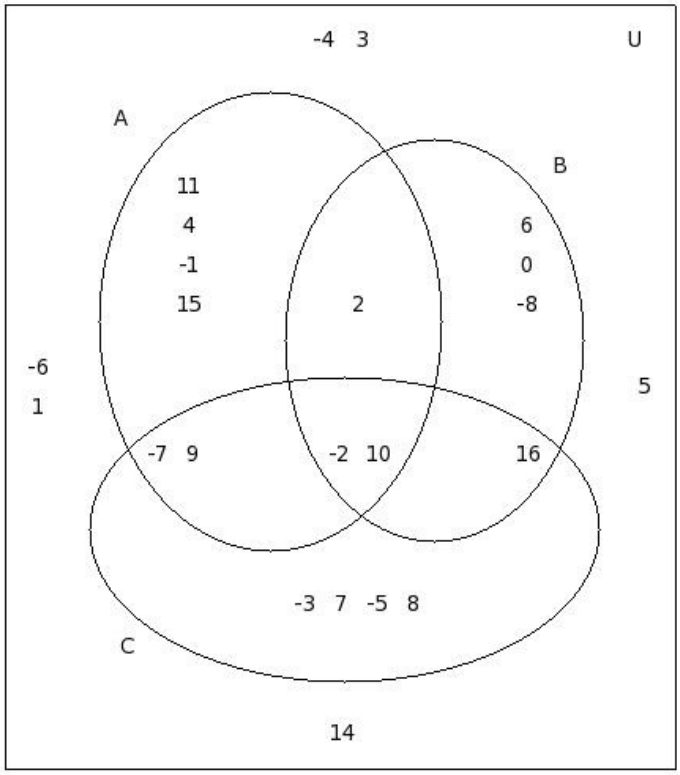


(i) 4 (ii) 7 (iii) 5 (iv) 2 (v) 3

14. In a class of 28 students, 5 students read 'The Hindu', 10 students read 'Deccan Chronicle', 22 students read 'Indian Express', 2 students read 'The Hindu' and 'Deccan Chronicle', 9 students read 'Deccan Chronicle' and 'Indian Express', 3 students read 'Indian Express' and 'The Hindu', 2 students read all the three news papers. How many of them read exactly two news papers?

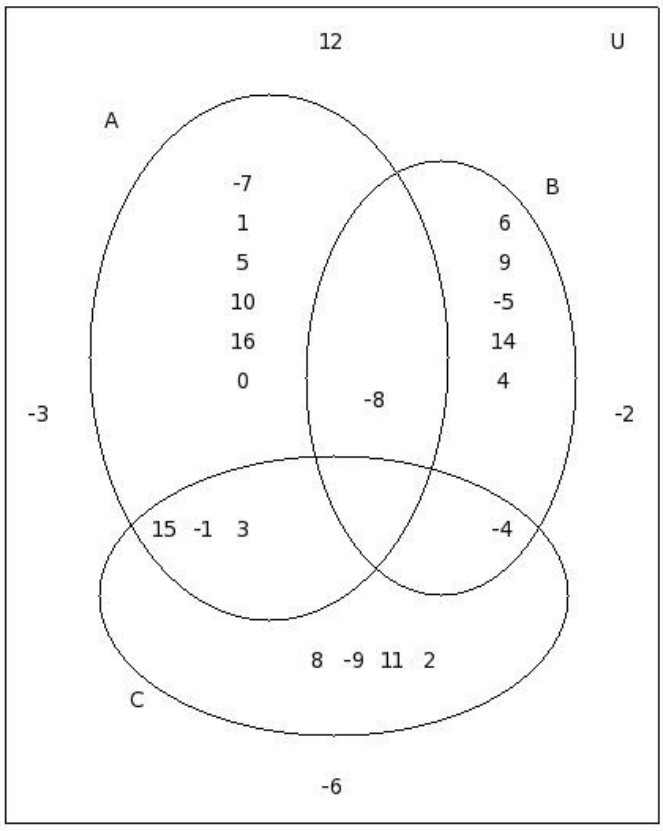
(i) 7 (ii) 11 (iii) 8 (iv) 9 (v) 5

15. Find n(C')



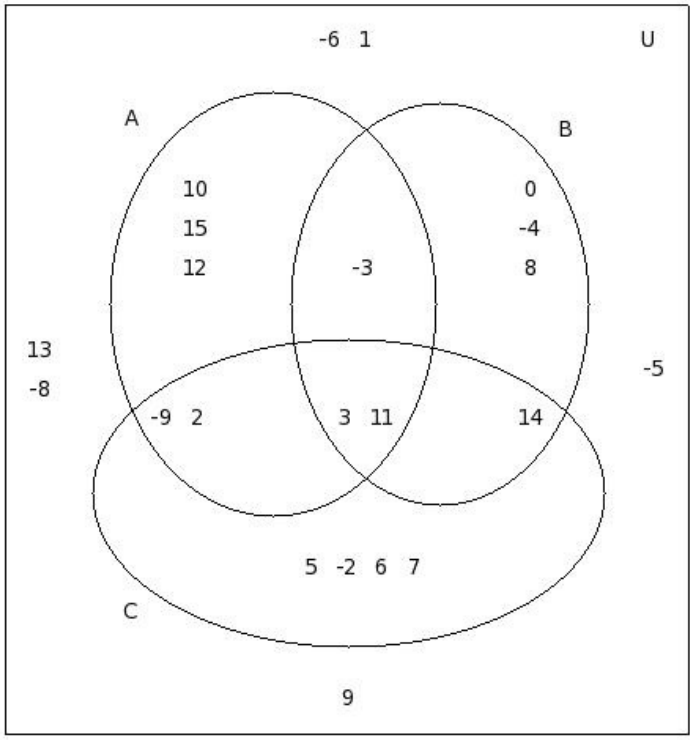
(i) 12 (ii) 15 (iii) 14 (iv) 13 (v) 17

16. Find n(A ∩ (B ∪ C))



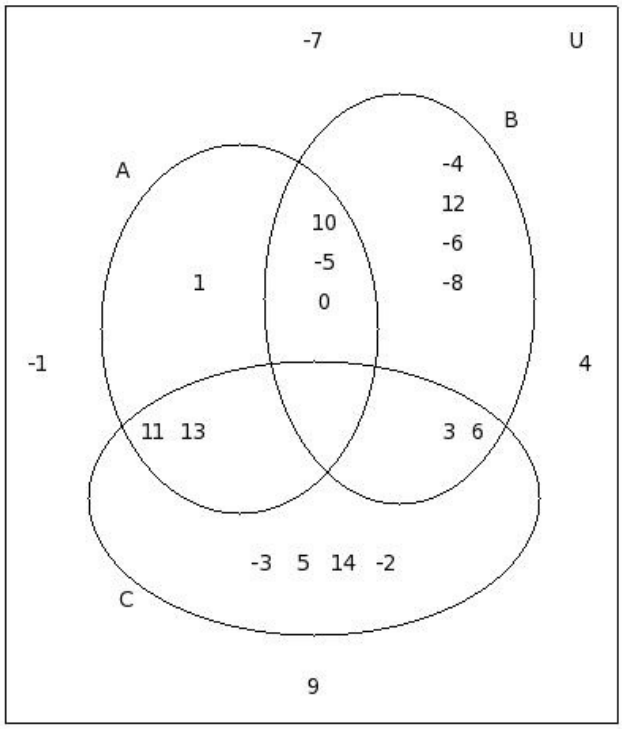
(i) 1 (ii) 6 (iii) 3 (iv) 4 (v) 5

17. Find B − (C ∪ A)



(i) {0,8,9} (ii) {0,-4,8} (iii) {0,-4} (iv) {0,-4,8,9} (v) {0,8,2}

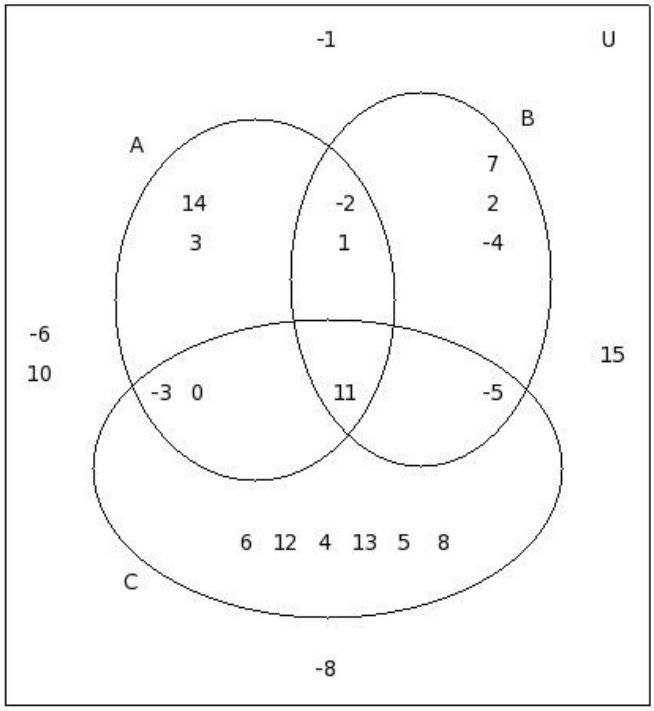
18. Find A



(i) {0,1,11,-5,10,12} (ii) {0,1,13,11,10} (iii) {0,1,11,-5,10,-2} (iv) {0,1,13,11,-5,10,-2}

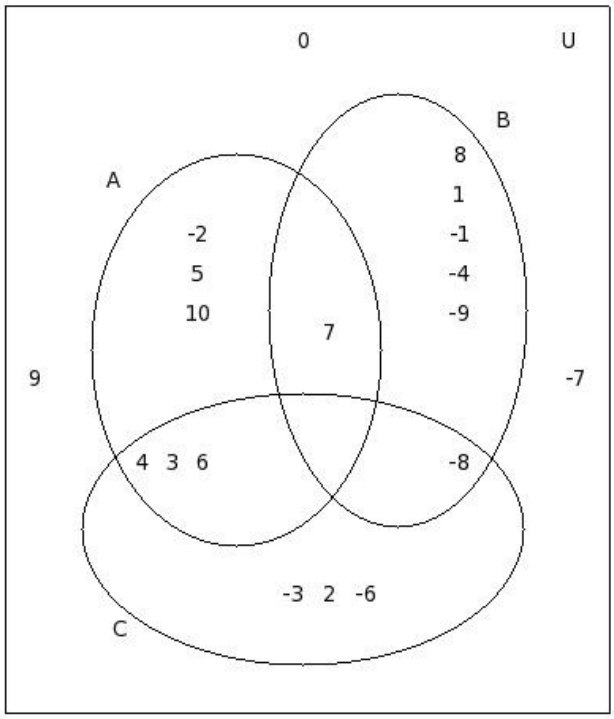
(v) {0,1,13,11,-5,10}

19. Find (A − B) ∩ (A − C)



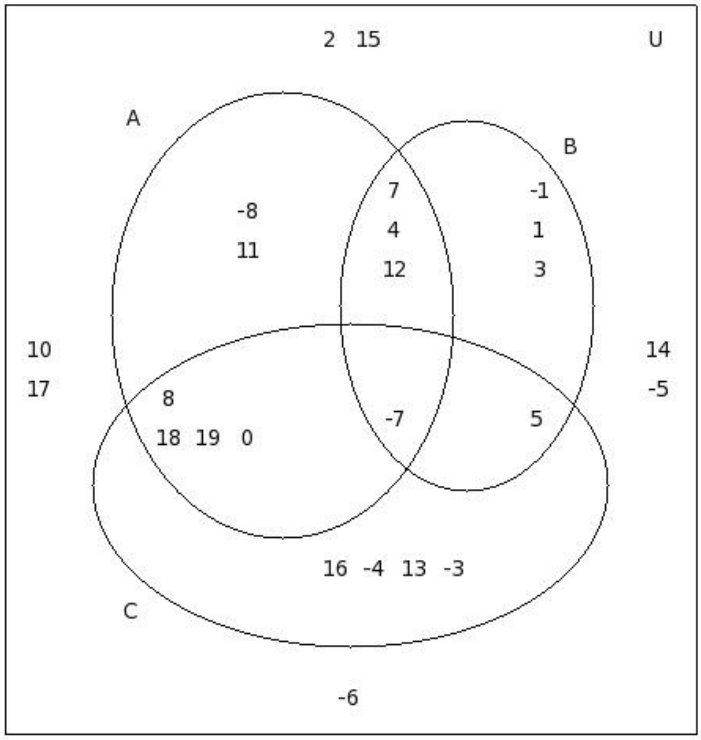
(i) {3} (ii) {14,3,2} (iii) {14,3} (iv) {3,2} (v) {14,4}

20. Find n((C − A) ∩ (C − B))



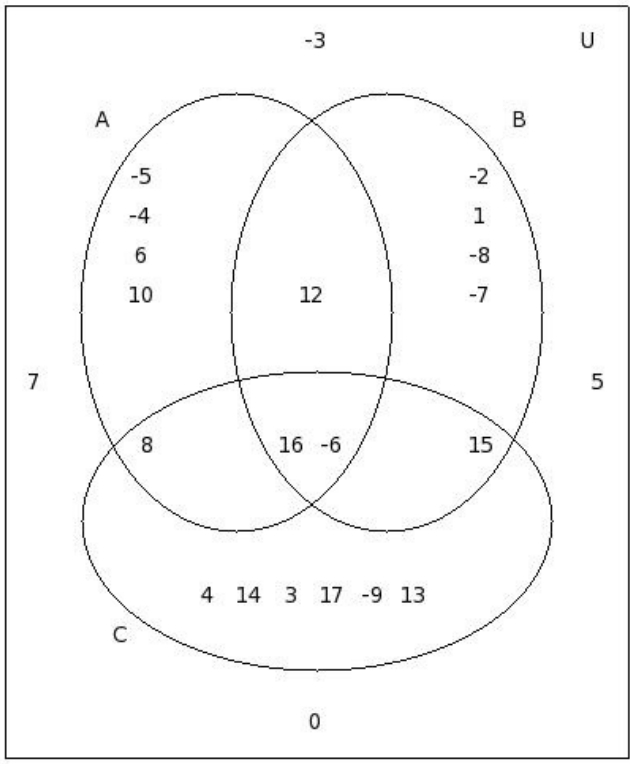
(i) 3 (ii) 1 (iii) 4 (iv) 5 (v) 2

21. Find n(C ∩ (A ∪ B))



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

22. Find n(A − (B ∩ C))



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

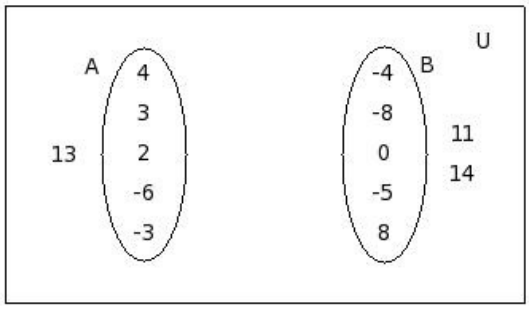
23. In a class of 28 students, each one likes either 'Watching TV' or 'Playing' or both. If 20 students like 'Watching TV' and 19 students like 'Playing', how many like 'Playing' only?

(i) 7 (ii) 8 (iii) 10 (iv) 9 (v) 6

24. In a class of 27 students, each one likes either 'long jump' or 'hockey' or both. If 14 students like 'long jump' and 26 students like 'hockey', how many like 'hockey' only?

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

25. A ∪ B =



(i) {3,14,-5,8,-3,4,0,-8,-6,2} (ii) {-3,0,-8,8,3,4,-6,-4,-5} (iii) {4,-8,-3,8,-5,0,3,-4,-6,2,13}

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

Assignment Key

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