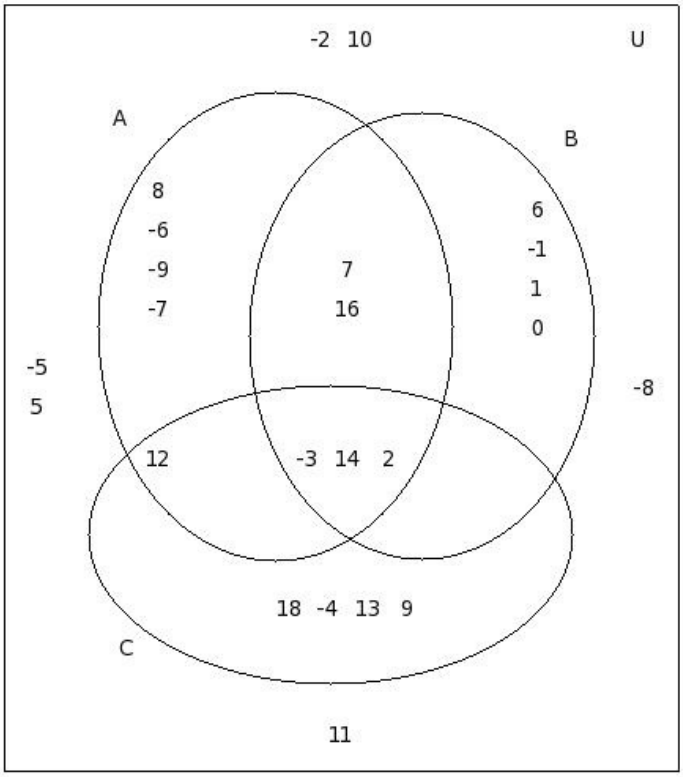
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Venn Diagrams

Grade : ICSE Grade VIII

1. Find (A − (A ∩ (B ∩ C)))'



(i) {10,13,-4,-3,9,18,-8,0,14,-5,6,11,-2,5,1,2,-6} (ii) {10,13,-4,-3,9,18,-8,0,-1,14,-5,6,11,-2,5,1}

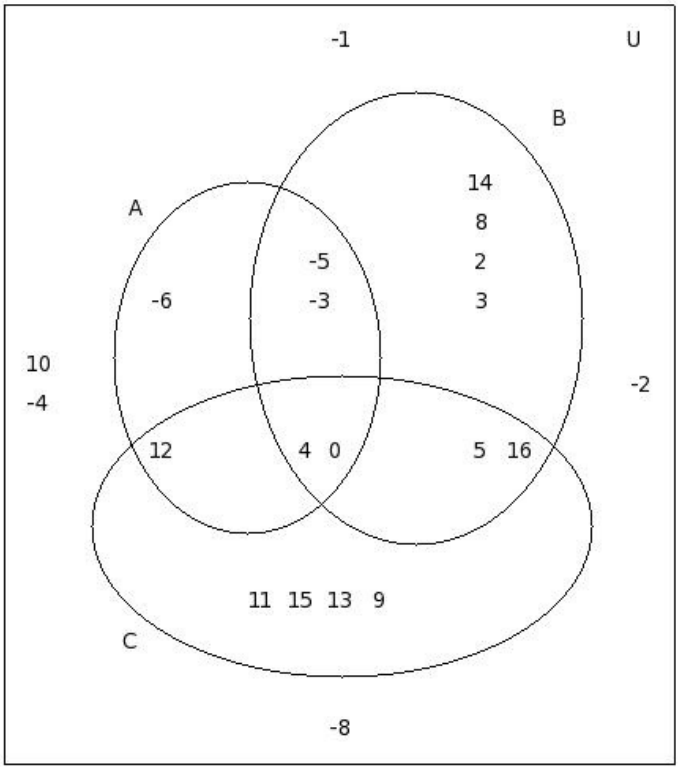
(iii) {10,13,-4,-3,9,18,-8,0,-1,14,-5,6,11,-2,5,1,2} (iv) {10,13,-4,-3,9,18,-8,0,-1,14,-5,6,11,5,1,2,8}

(v) {10,13,-4,-3,9,18,-8,0,-1,14,-5,6,11,-2,5,1,2,8}

2. In a class of 31 students, if 23 students like 'Community work', 17 students like 'Listening music' and 11 students like both the activities, how many do not like any of the activities ?

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

3. Find B − (C ∪ A)

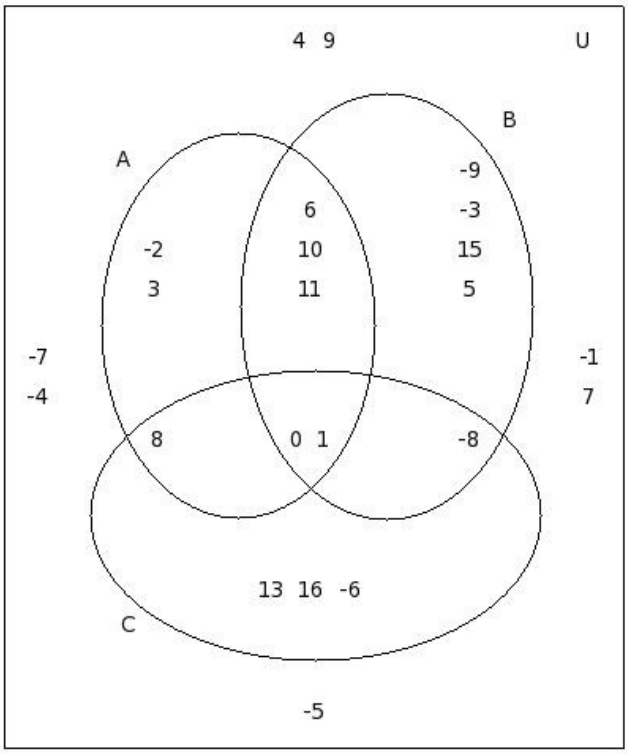


(i) {14,2,8,-2} (ii) {14,8,3} (iii) {14,2,8,3} (iv) {2,8,3,0} (v) {14,2,8,3,0}

4. In a class of 26 students, if 7 students study 'Hindi', 16 students study 'English' and 7 students study both the subjects, how many study 'Hindi' only ?

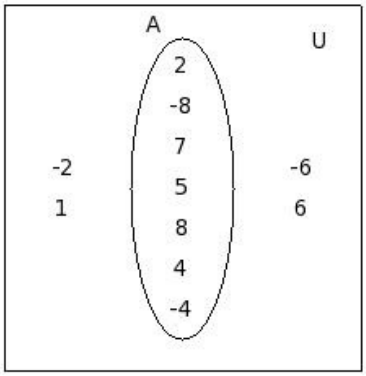
(i) (-2) (ii) 3 (iii) (-1) (iv) 1 (v) 0

5. Find n(A − (B ∩ C))



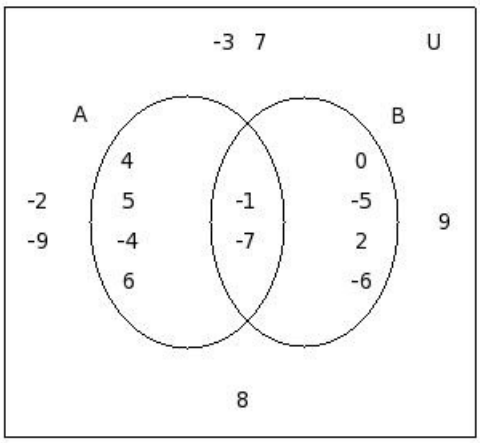
(i) 9 (ii) 3 (iii) 5 (iv) 7 (v) 6

6. Find n(A ∪ A)



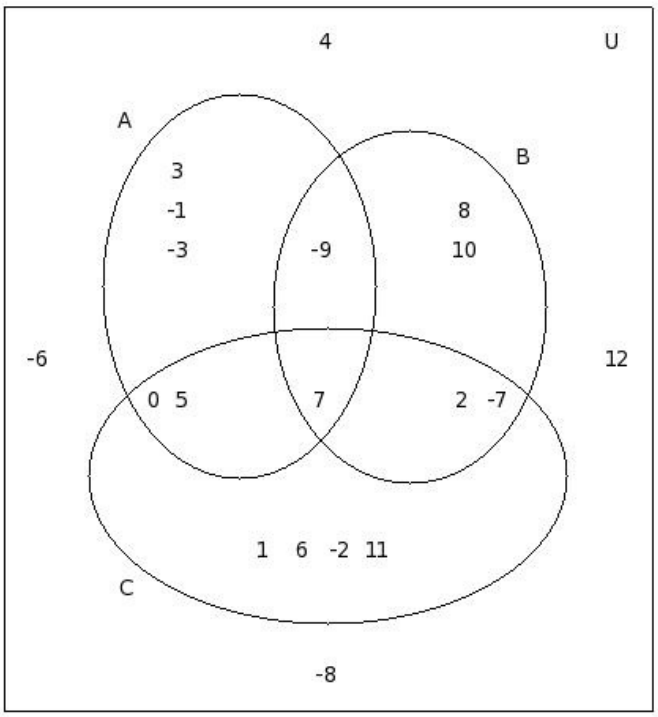
(i) 10 (ii) 7 (iii) 4 (iv) 8 (v) 6

7. Find n(A ∪ B)



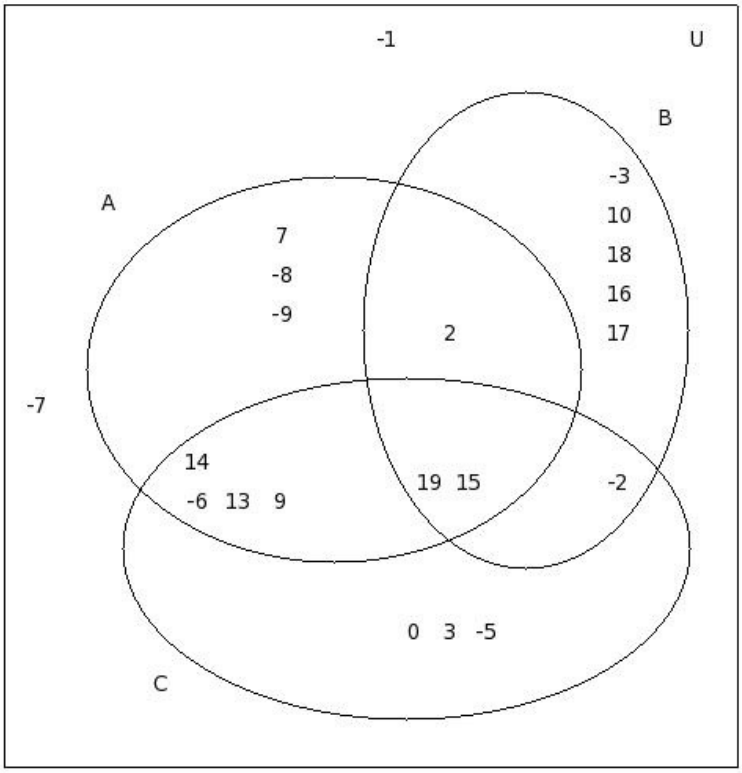
(i) 9 (ii) 8 (iii) 13 (iv) 11 (v) 10

8. Find (A ∩ B) ∪ (A ∩ C)



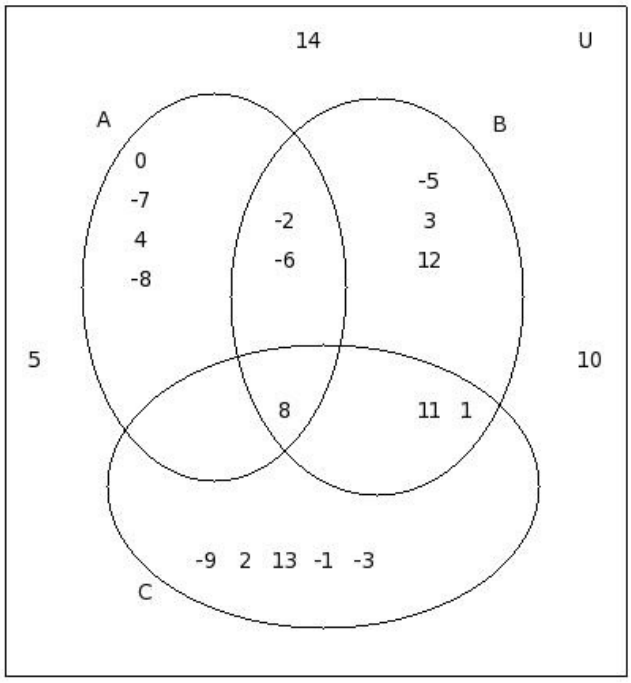
(i) {7,5,0,-9} (ii) {7,5,0,3} (iii) {7,0,-9,-1} (iv) {7,5,0,-9,3} (v) {7,0,-9}

9. Find n((A − (A ∩ (B ∩ C)))')



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

10. Find (A ∩ B) ∩ C

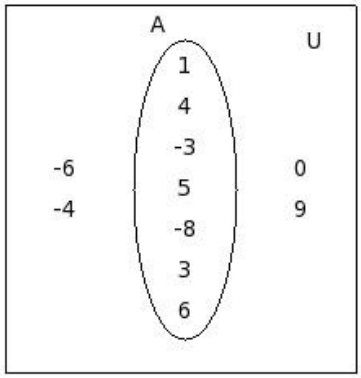


(i) {8} (ii) {-8} (iii) {2} (iv) {8,-8} (v) {}

11. In a class of 31 students, 5 students like 'football', 8 students like 'kabaddi', 10 students like 'carroms', 1 students like 'football' and 'kabaddi', 5 students like 'kabaddi' and 'carroms', 2 students like 'carroms' and 'football', 1 students like all the three games. How many of them like exactly two games?

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

12. Find A

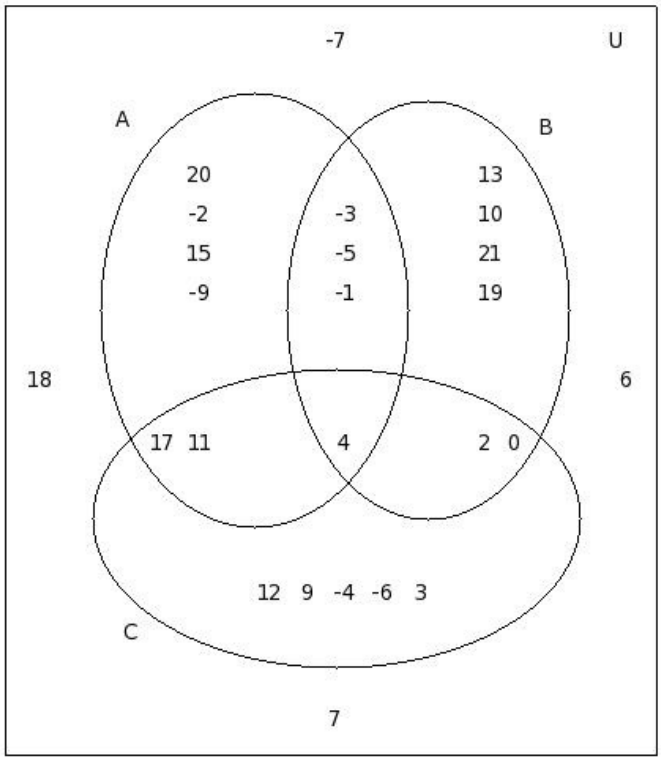


(i) {4,-9,9,0,1,5} (ii) {3,5,-3,6,1,-8,4} (iii) {3,-9,1,4,5,6} (iv) {-9,4,1,0,3,5,9,2} (v) {4,1,-8,5,3,6}

13. In a class of 33 students, 19 students like 'Painting', 19 students like 'Playing', 12 students like 'Watching TV', 10 students like 'Painting' and 'Playing', 5 students like 'Playing' and 'Watching TV', 7 students like 'Watching TV' and 'Painting', 3 students like all the three activities. How many of them like only 'Playing'?

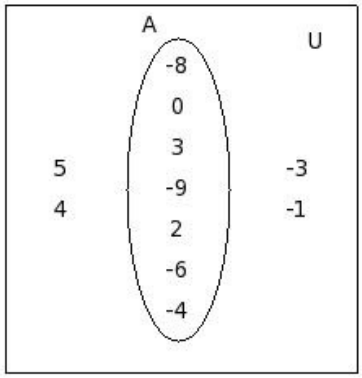
(i) 4 (ii) 8 (iii) 10 (iv) 6 (v) 7

14. Find n((A ∩ B) ∪ (A ∩ C))



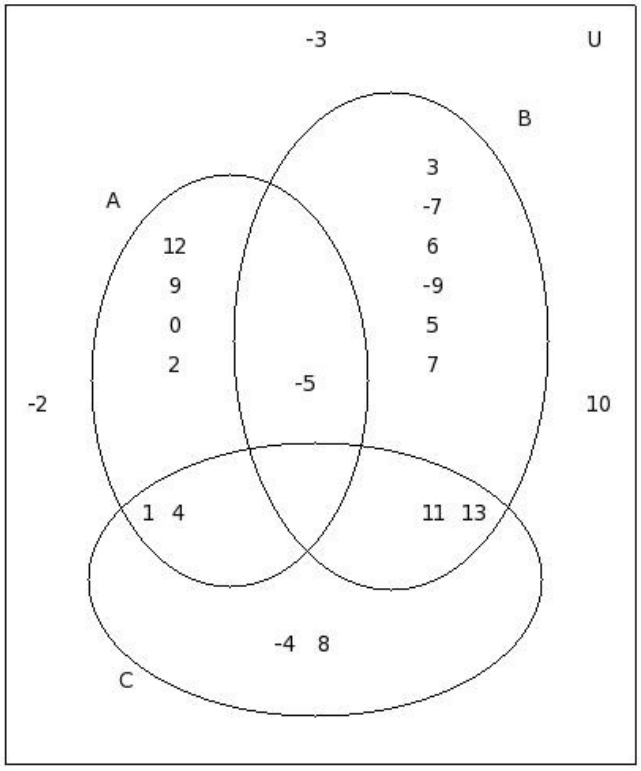
(i) 3 (ii) 5 (iii) 8 (iv) 7 (v) 6

15. Find n(μ)



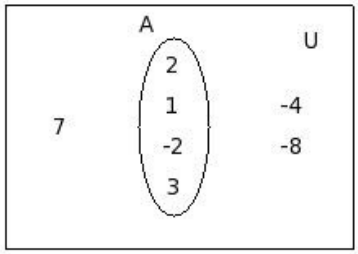
(i) 14 (ii) 8 (iii) 11 (iv) 12 (v) 10

16. Find n(A)



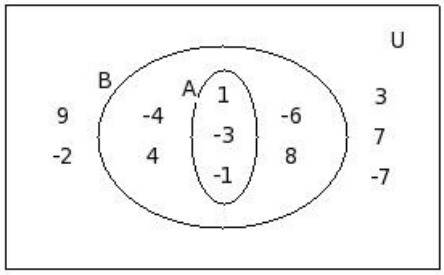
(i) 7 (ii) 10 (iii) 6 (iv) 8 (v) 5

17. Find A ∩ ∅



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

18. Find n(A)

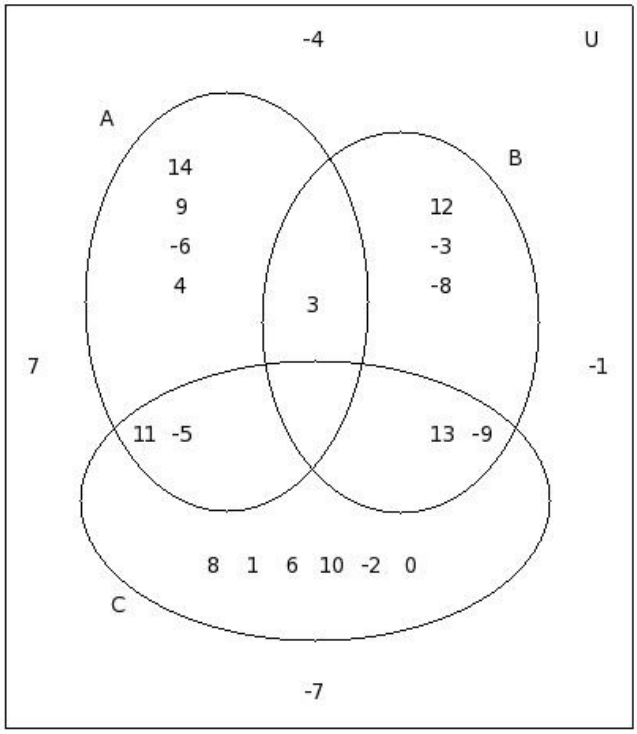


(i) 3 (ii) 1 (iii) 2 (iv) 5 (v) 4

19. In a class of 29 students, 11 students prefer 'Car', 16 students prefer 'Bicycle', 9 students prefer 'Scooter', 5 students prefer 'Car' and 'Bicycle', 6 students prefer 'Bicycle' and 'Scooter', 4 students prefer 'Scooter' and 'Car', 2 students prefer all the three modes of transport. How many of them prefer more than one mode of transport?

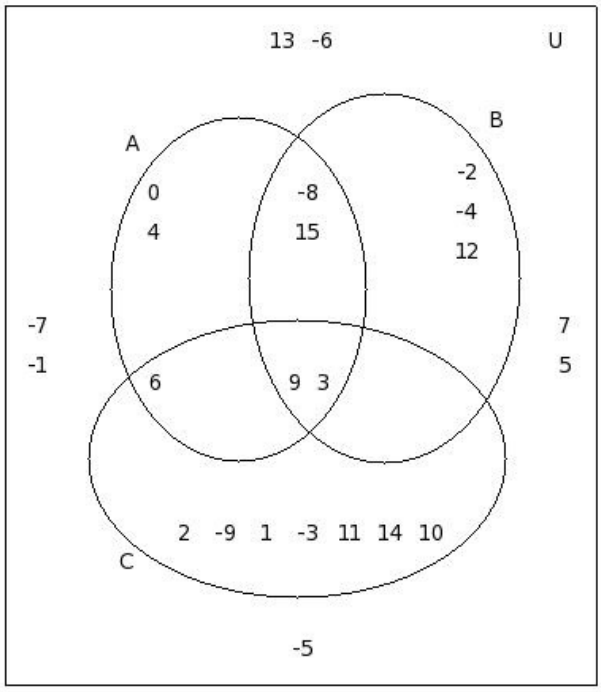
(i) 12 (ii) 9 (iii) 13 (iv) 10 (v) 11

20. Find C ∩ (A ∪ B)



(i) {13,-9,-5,9} (ii) {11,-9,-5,3} (iii) {11,13,-9} (iv) {11,13,-9,-5,3} (v) {11,13,-9,-5}

21. Find (A ∩ B ∩ C)'



(i) {15,6,-5,0,12,14,-6,1,-4,13,2,-3,11,7,10,-1,-8,5,4,-7,-2,-9,9}

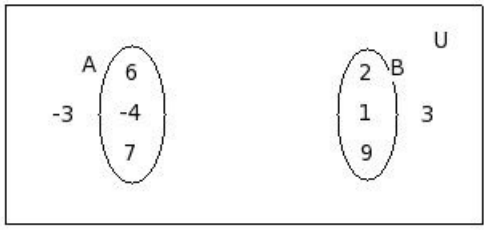
(ii) {15,6,-5,0,12,14,-6,1,-4,13,2,-3,11,7,10,-1,-8,5,4,-7,-2,-9}

(iii) {15,6,-5,0,12,14,-6,1,-4,13,2,-3,11,7,10,-1,5,4,-7,-2,-9}

(iv) {15,6,-5,0,12,-6,1,-4,13,2,-3,11,7,10,-1,-8,5,4,-7,-2,-9,3}

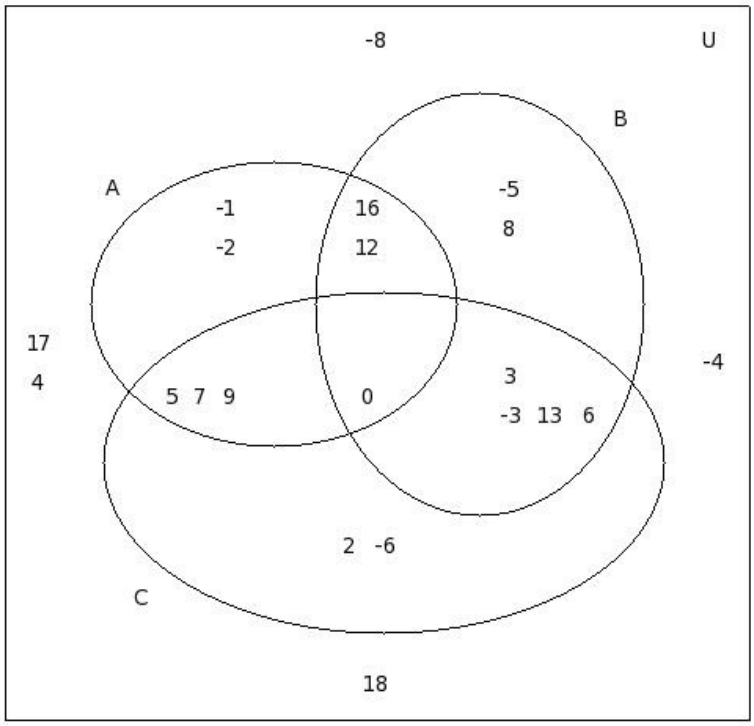
(v) {15,6,-5,0,12,14,1,-4,13,2,-3,11,7,10,-1,-8,5,4,-7,-2,-9,9}

22. Find n(((A − B) ∪ (B − A))')



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

23. Find n((C − A) ∩ (C − B))

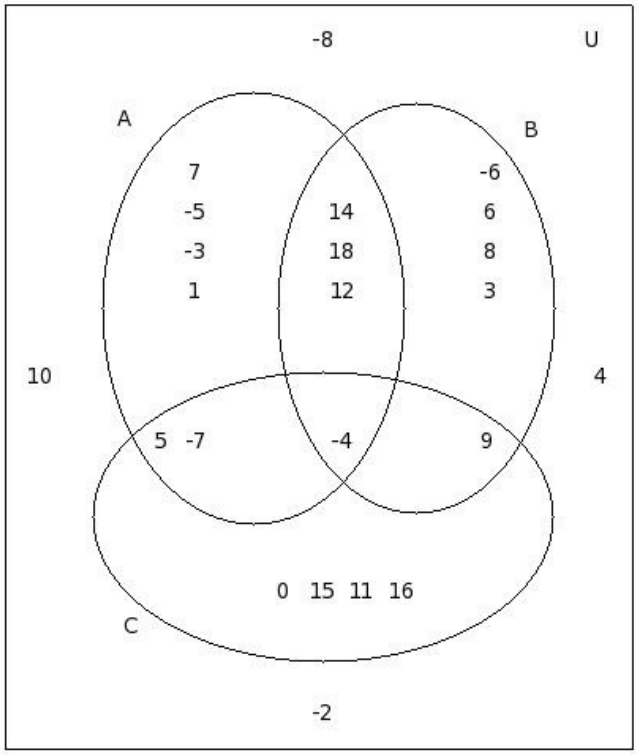


(i) 1 (ii) 0 (iii) 3 (iv) 2 (v) 4

24. In a class of 34 students, if 33 students like 'volleyball', 6 students like 'long jump' and 6 students like both the games, how many do not like any of the games ?

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

25. Find C ∪ (A ∩ B)



(i) {14,-4,-7,12,0,15,9,18,5,11,16} (ii) {14,-4,-7,12,0,15,9,18,5,11,16,-5} (iii) {14,-4,-7,12,0,15,9,18,5,11}

(iv) {14,-4,-7,12,0,15,9,5,11,16,3} (v) {14,-4,-7,12,0,15,18,5,11,16,-5}

Assignment Key

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