EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Venn Diagrams

Grade : ICSE Grade VIII

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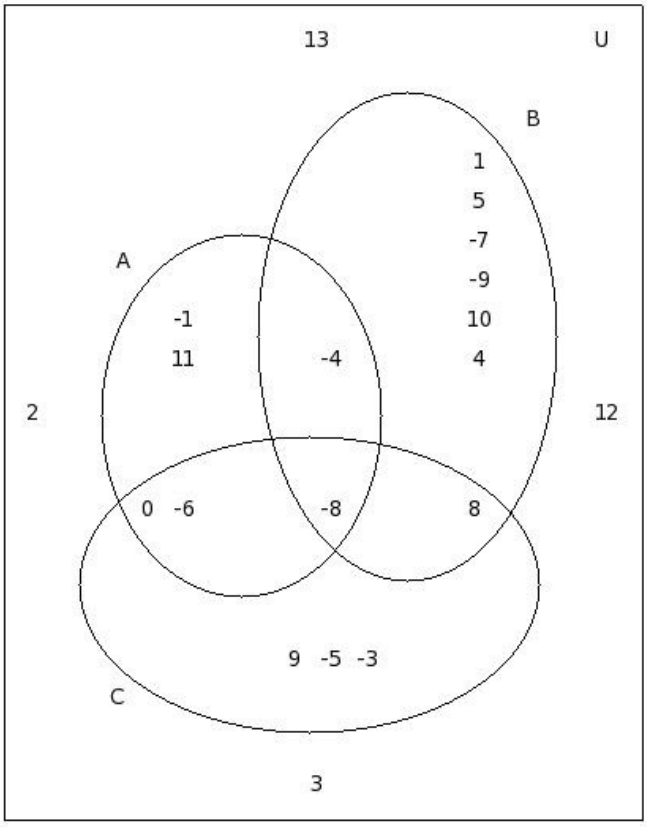
1. Find n((A ∪ B ∪ C)')



(i) 5 (ii) 6 (iii) 4 (iv) 2 (v) 3

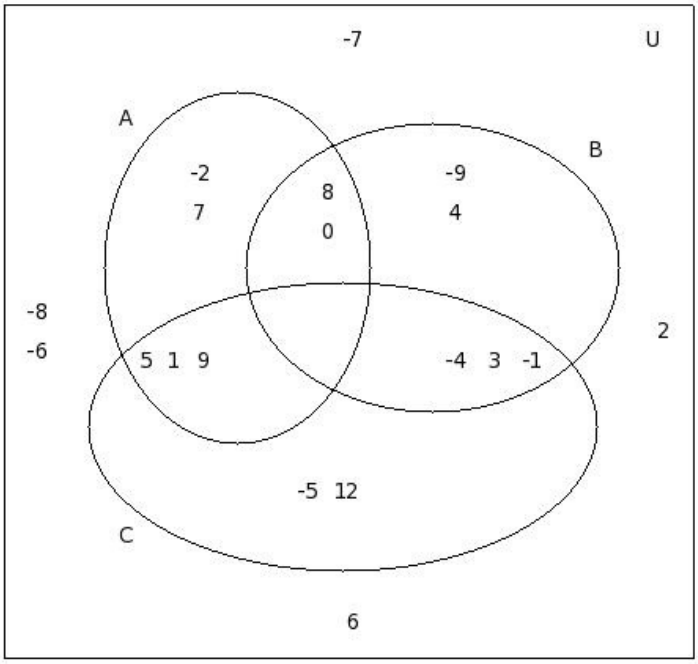
2. In a class of 35 students, 20 students read 'News Today', 21 students read 'Hans India', 29 students read 'Deccan Chronicle', 11 students read 'News Today' and 'Hans India', 17 students read 'Hans India' and 'Deccan Chronicle', 18 students read 'Deccan Chronicle' and 'News Today', 10 students read all the three news papers. How many of them read exactly two news papers?

(i) 17 (ii) 13 (iii) 19 (iv) 15 (v) 16

3. In a class of 33 students, if 32 students like 'Reading books', 10 students like 'Dancing' and 9 students like both the activities, how many like 'Reading books' only ?

(i) 26 (ii) 22 (iii) 23 (iv) 24 (v) 21

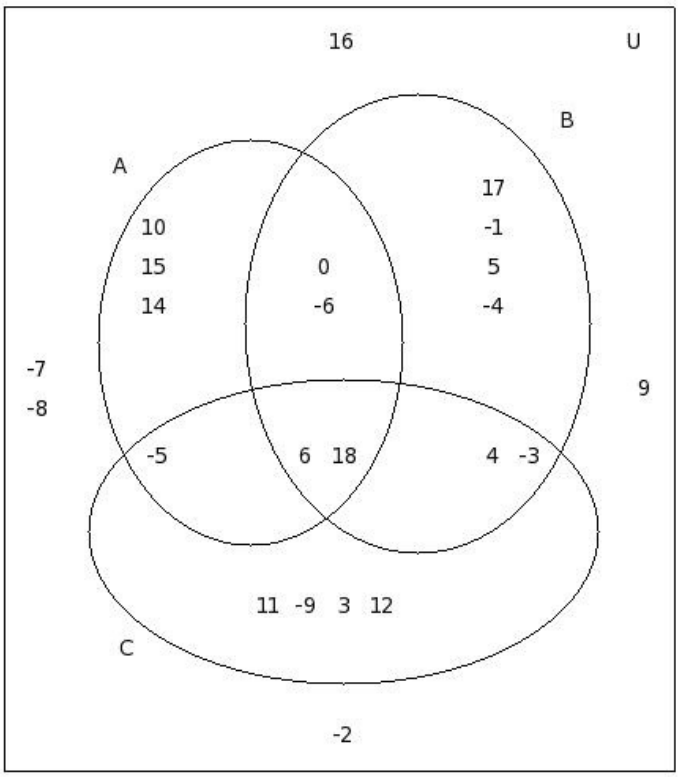
4. Find B ∪ C



(i) {5,-9,12,-5,8,-1,1,3,-4,4,0,9,2} (ii) {5,-9,12,-5,8,-1,1,3,-4,4,0,9} (iii) {5,-9,12,-5,-1,1,3,-4,4,0,9,7}

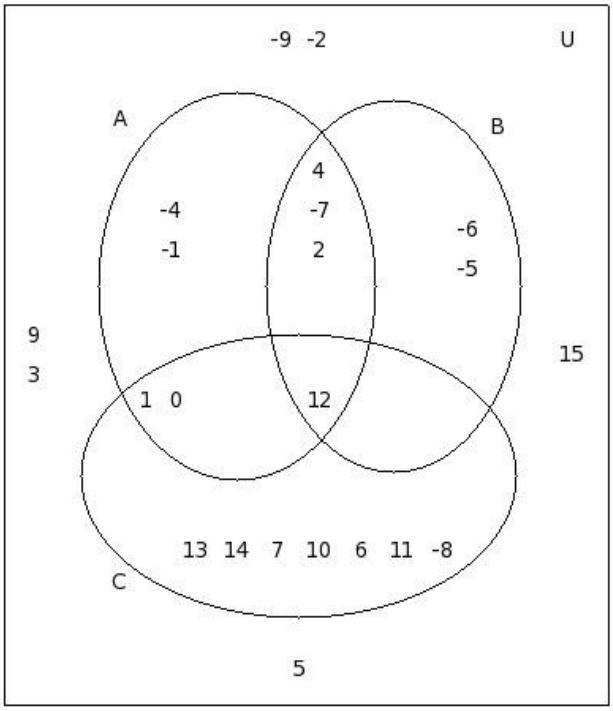
(iv) {5,-9,12,-5,8,-1,1,3,-4,0,9} (v) {5,-9,12,-5,8,-1,1,3,-4,4,0,2}

5. Find n(B ∩ C)



(i) 5 (ii) 6 (iii) 3 (iv) 4 (v) 2

6. Find C'



(i) {-5,-9,9,2,4,5,-4,15,3,-2,-1,-7,6} (ii) {-5,9,-6,2,4,5,-4,15,3,-2,-1,-7,7} (iii) {-5,-9,9,-6,2,4,5,-4,3,-2,-1,-7}

(iv) {-5,-9,9,-6,2,4,5,-4,15,3,-2,-1,-7} (v) {-5,-9,9,-6,2,4,5,-4,15,3,-2,-1,-7,7}

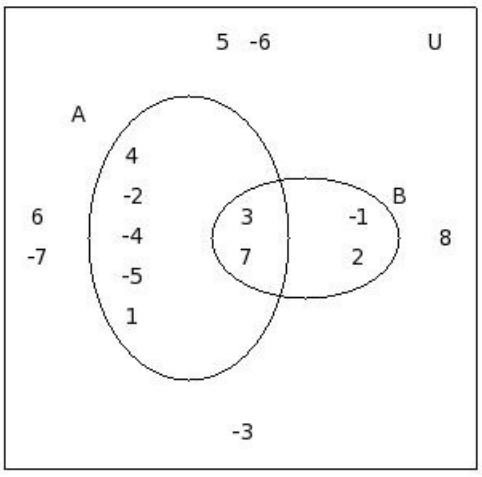
7. In a class of 35 students, 27 students like 'wrestling', 21 students like 'swimming', 15 students like 'volleyball', 17 students like 'wrestling' and 'swimming', 10 students like 'swimming' and 'volleyball', 10 students like 'volleyball' and 'wrestling', 7 students like all the three games. How many of them like only 'swimming'?

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

8. In a class of 26 students, if 21 students read 'The Hindu', 22 students read 'Hindustan Times' and 17 students read both the news papers, how many read 'The Hindu' only ?

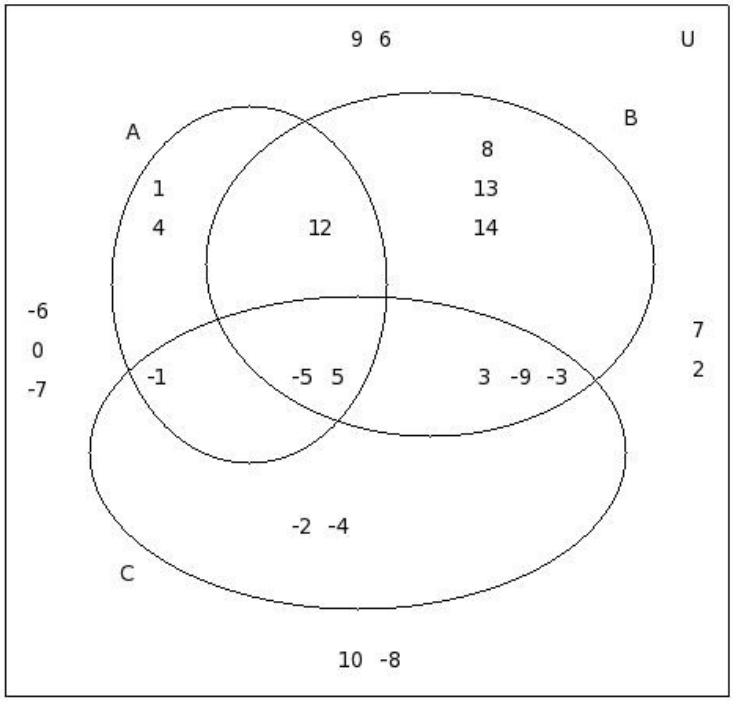
(i) 7 (ii) 5 (iii) 1 (iv) 3 (v) 4

9. Find n(A ∩ B)



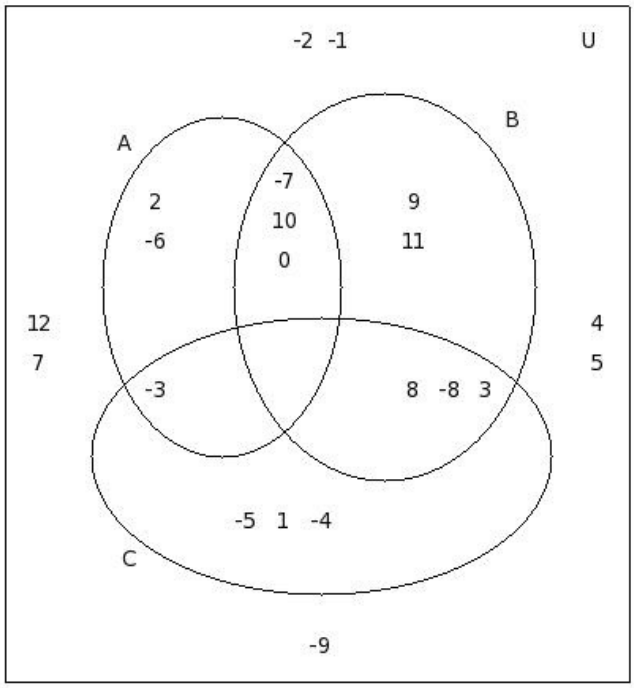
(i) 3 (ii) 1 (iii) 0 (iv) 2 (v) 4

10. Find n((C ∩ A)')



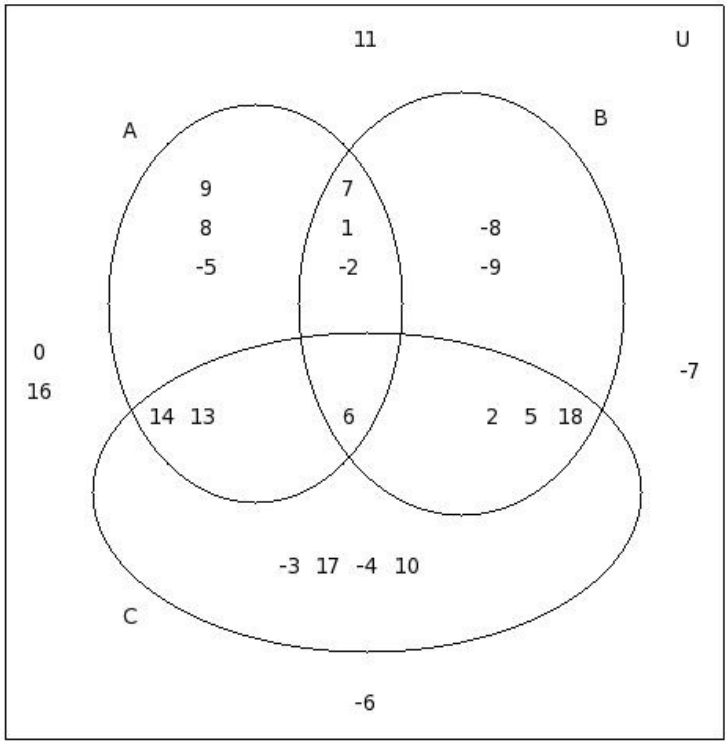
(i) 19 (ii) 21 (iii) 23 (iv) 18 (v) 20

11. Find n((C − A) ∪ (C − B))



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

12. Find (B ∩ C)'

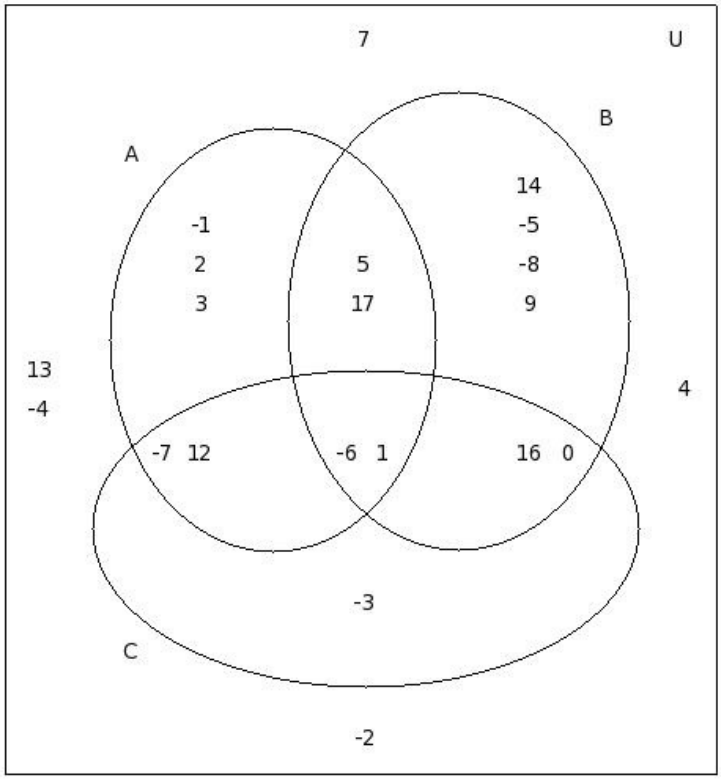


(i) {-9,14,16,-3,-5,-4,1,-2,-6,13,7,17,-8,10,0,11,8,9} (ii) {-9,14,16,-3,-5,-4,1,-2,-6,13,7,17,10,0,11,-7,8,9,2}

(iii) {-9,14,16,-3,-5,-4,1,-2,-6,13,7,17,-8,10,0,11,-7,8,9,6}

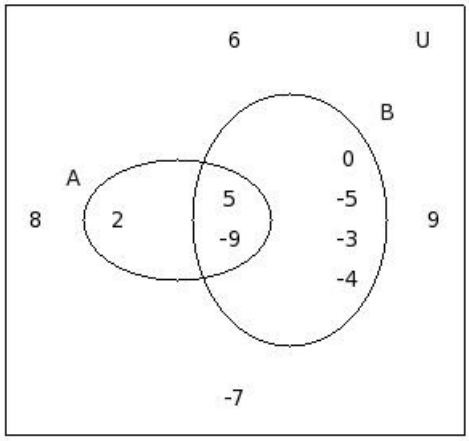
(iv) {-9,14,16,-3,-5,-4,1,-2,-6,13,7,17,-8,10,0,11,-7,8,9} (v) {-9,14,16,-3,-5,-4,1,-2,-6,13,7,17,-8,10,0,-7,8,9,6}

13. Find n(B)



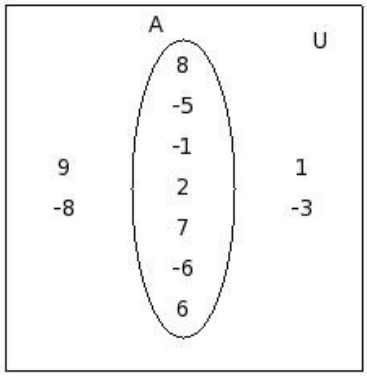
(i) 10 (ii) 7 (iii) 11 (iv) 9 (v) 12

14. Find A − B



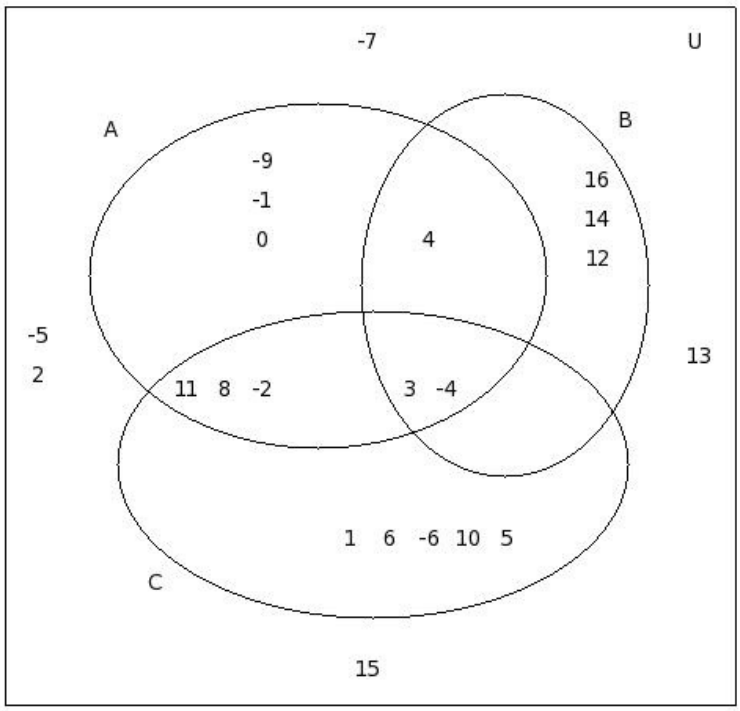
(i) {9} (ii) {2} (iii) {8,2} (iv) {}

15. Find n(A ∪ A')



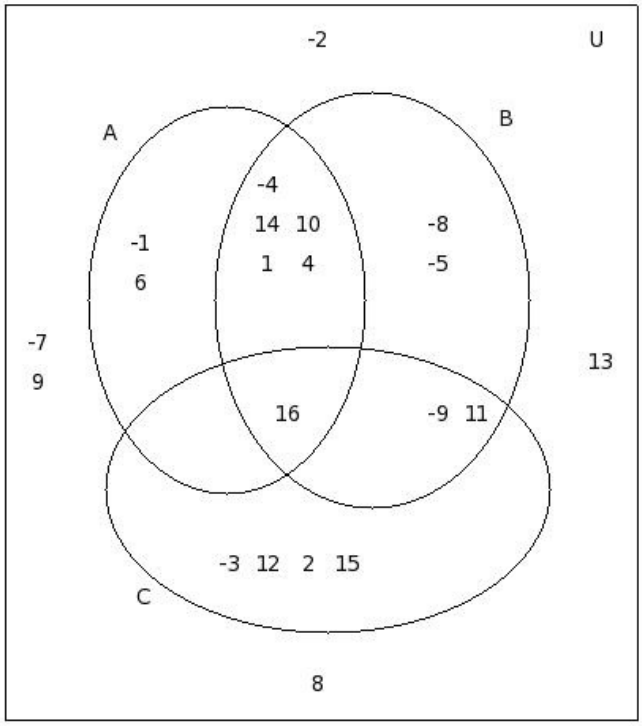
(i) 13 (ii) 8 (iii) 11 (iv) 12 (v) 10

16. Find n((A − (A ∩ (B ∩ C)))')



(i) 18 (ii) 15 (iii) 16 (iv) 12 (v) 14

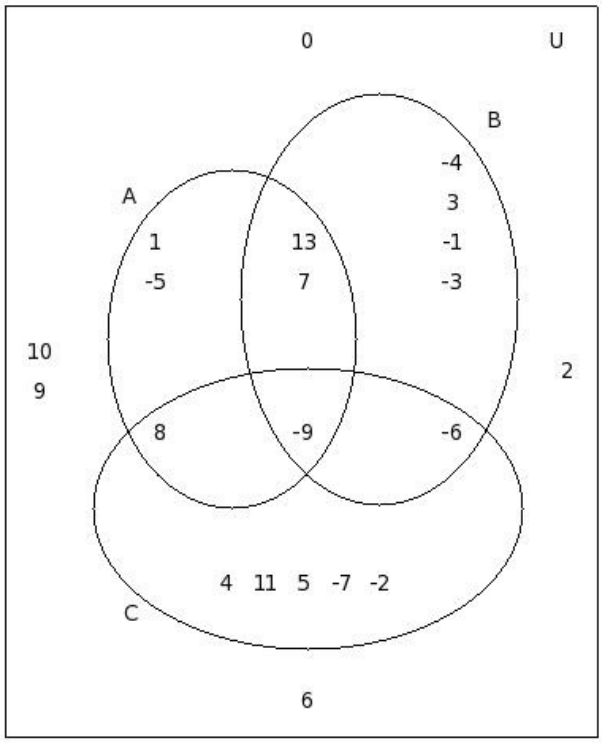
17. Find B − (A ∩ (B ∩ C))



(i) {-8,1,-9,4,-4,-5,11,14,2} (ii) {-8,1,-9,-4,-5,10,11,14} (iii) {-8,1,-9,4,-4,-5,10,11,14}

(iv) {-8,1,-9,4,-4,-5,10,11,14,16} (v) {-8,1,4,-4,-5,10,11,14,16}

18. Find A ∩ (B ∪ C)

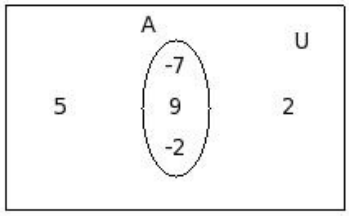


(i) {13,8,7,3} (ii) {13,-9,8,7,3} (iii) {13,-9,8,7} (iv) {-9,8,7,4} (v) {13,-9,8}

19. In a class of 23 students, each one reads either 'News Today' or 'Hans India' or both. If 6 students read 'News Today' and 23 students read 'Hans India', how many read 'News Today' only?

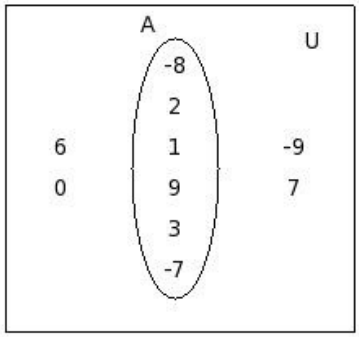
(i) (-2) (ii) 3 (iii) 1 (iv) 0 (v) (-1)

20. Find A ∪ μ



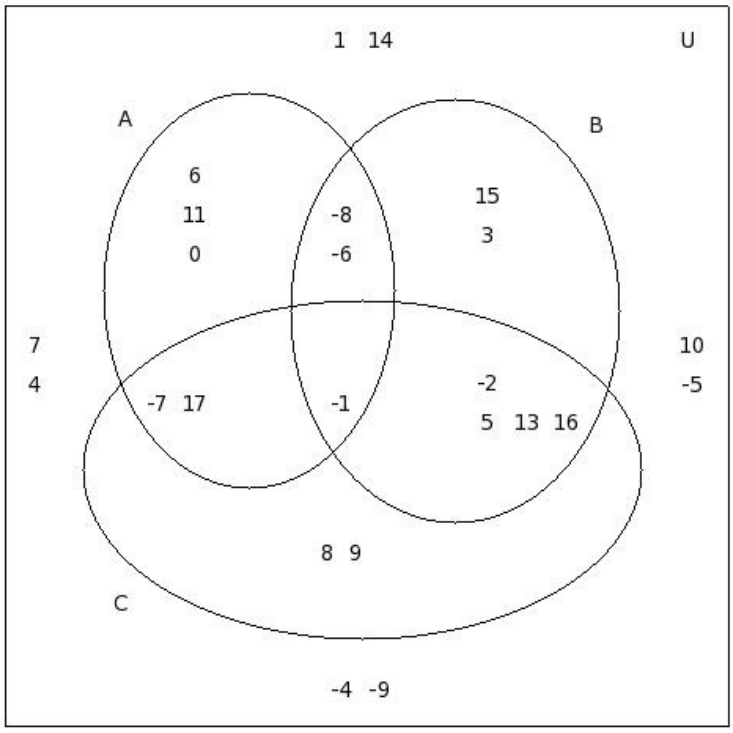
(i) {2,-2,-7,9,5} (ii) {-2,9,2,4} (iii) {3,9,1,2,4,-1} (iv) {5,-2,9,2} (v) {9,3,2,4}

21. Find n(∅)



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

22. Find (C ∩ A)'



(i) {-6,16,6,13,10,-2,-9,14,11,4,-8,-5,0,1,9,-4,5,15,3,7}

(ii) {-6,8,16,6,13,10,-2,14,11,4,-8,-5,0,1,9,-4,5,15,3,7,-7}

(iii) {-6,8,16,6,13,10,-2,-9,14,11,4,-8,-5,0,1,9,-4,5,15,3,7,-7}

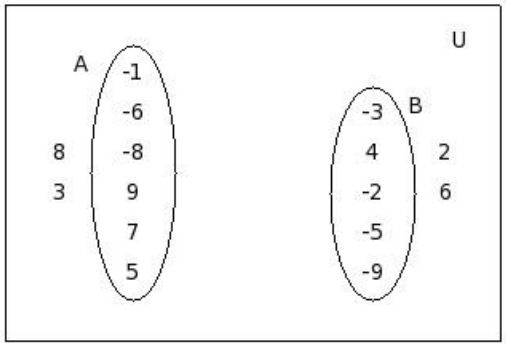
(iv) {-6,8,16,6,13,10,-2,-9,14,11,4,-8,-5,0,9,-4,5,15,3,7,-1}

(v) {-6,8,16,6,13,10,-2,-9,14,11,4,-8,-5,0,1,9,-4,5,15,3,7}

23. In a class of 35 students, 21 students in 'Science', 22 students in 'Spanish', 16 students in 'French', 13 students in 'Science' and 'Spanish', 11 students in 'Spanish' and 'French', 9 students in 'French' and 'Science', 7 students in all the three subjects could get first class marks. How many of them got first class marks in only 'French'?

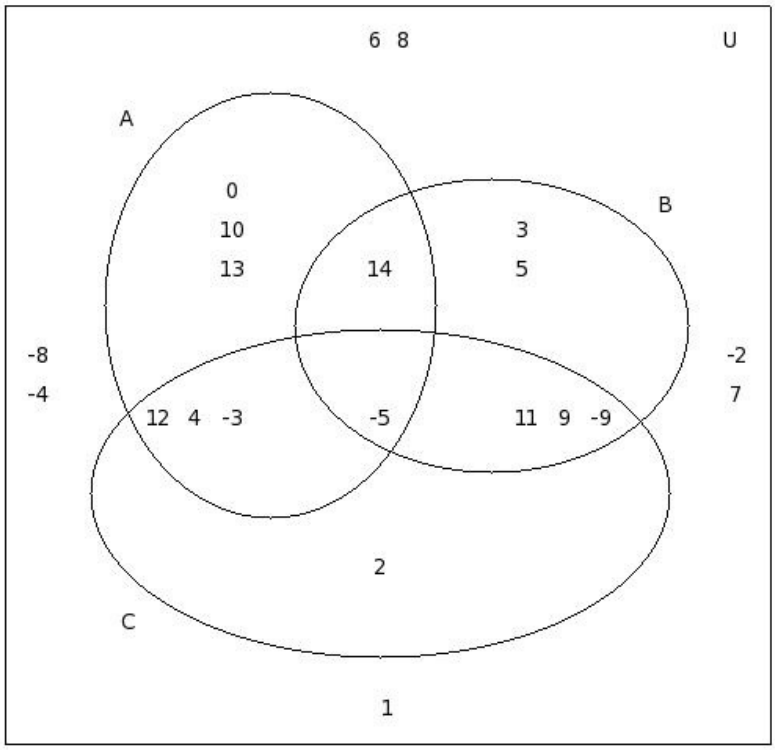
(i) 5 (ii) 0 (iii) 4 (iv) 3 (v) 2

24. Find (A ∪ B)'



(i) {2,8,6,3} (ii) {}

25. Find n((C ∪ A) ∩ (C ∪ B))



(i) 7 (ii) 10 (iii) 12 (iv) 9 (v) 8

Assignment Key

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