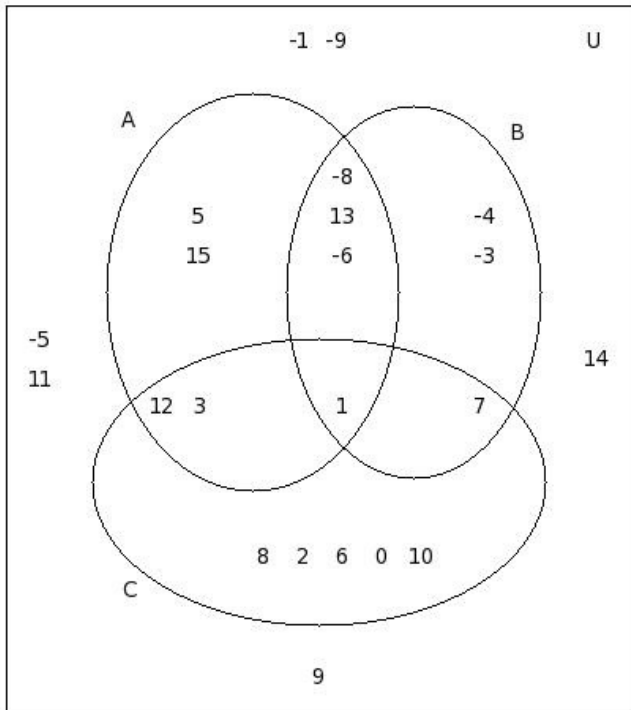


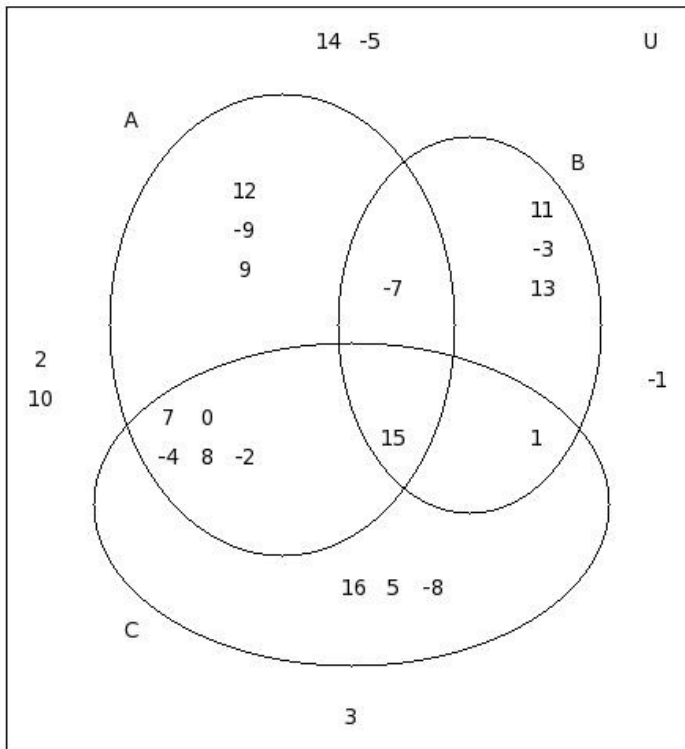


1. Find  $A - (B \cup C)$



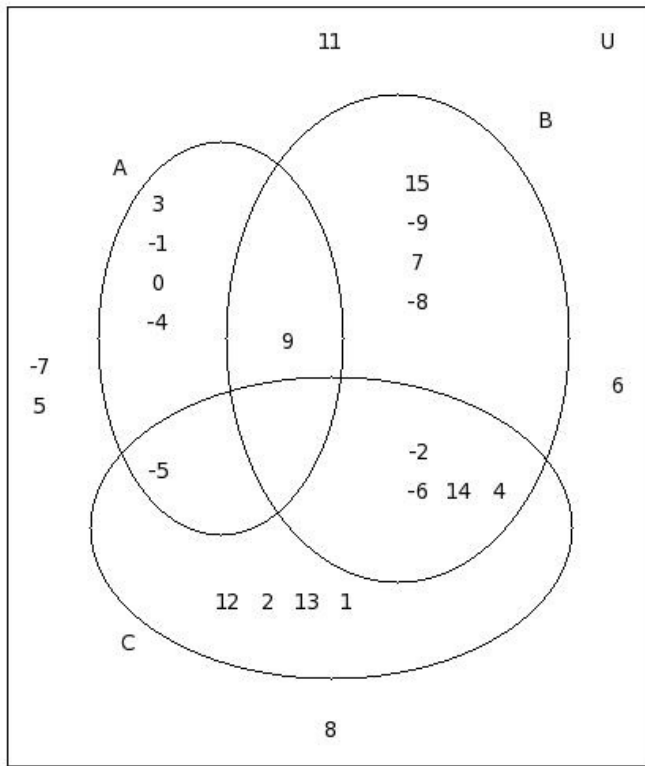
- (i) {15} (ii) {15,5,12} (iii) {5,12} (iv) {15,5} (v) {5,10}

2. Find  $B - (C \cup A)$



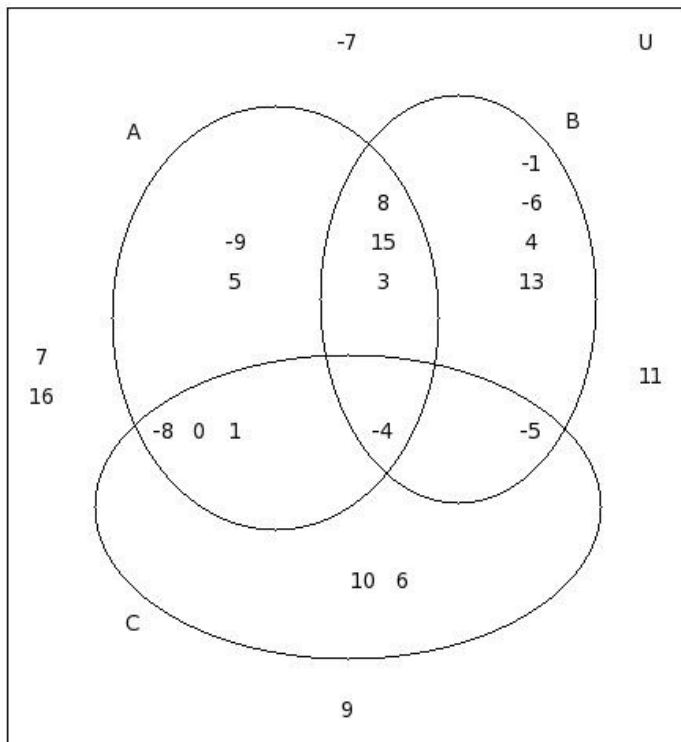
- (i) {-3,13,15} (ii) {-3,13,11} (iii) {-3,13} (iv) {-3,13,11,15} (v) {-3,11,3}

3. Find  $C - (A \cup B)$



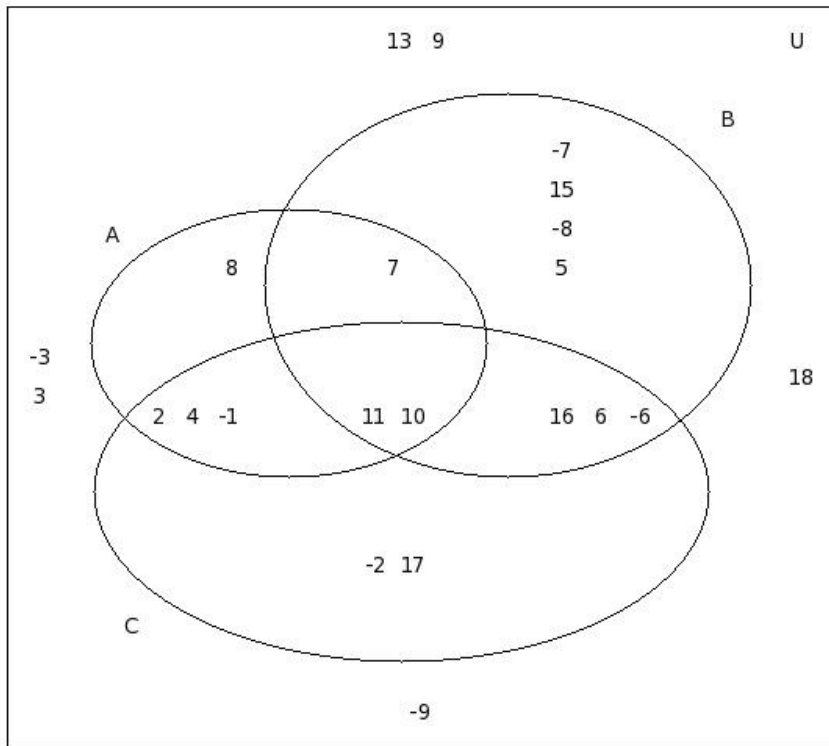
- (i) {13,2,1,8} (ii) {13,2,12,-7} (iii) {13,2,12,1,8} (iv) {13,12,1} (v) {13,2,12,1}

4. Find  $A - (B \cap C)$



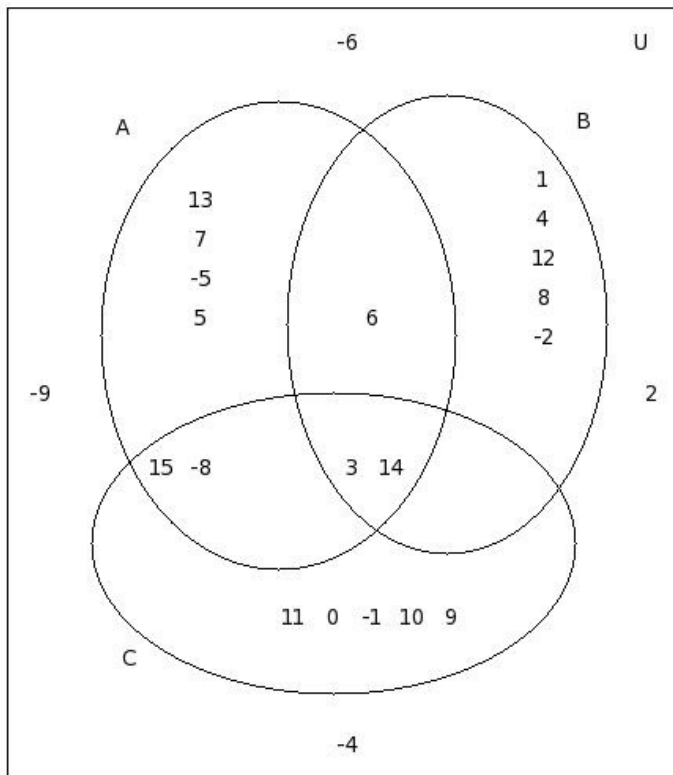
- (i) {5,-8,-9,0,15,8,1,3} (ii) {5,-8,-9,0,15,8,3} (iii) {5,-8,-9,0,15,8,1,3,-5} (iv) {5,-8,-9,0,15,1,3,-5} (v) {5,-8,-9,0,8,1,3,7}

5. Find  $B - (C \cap A)$



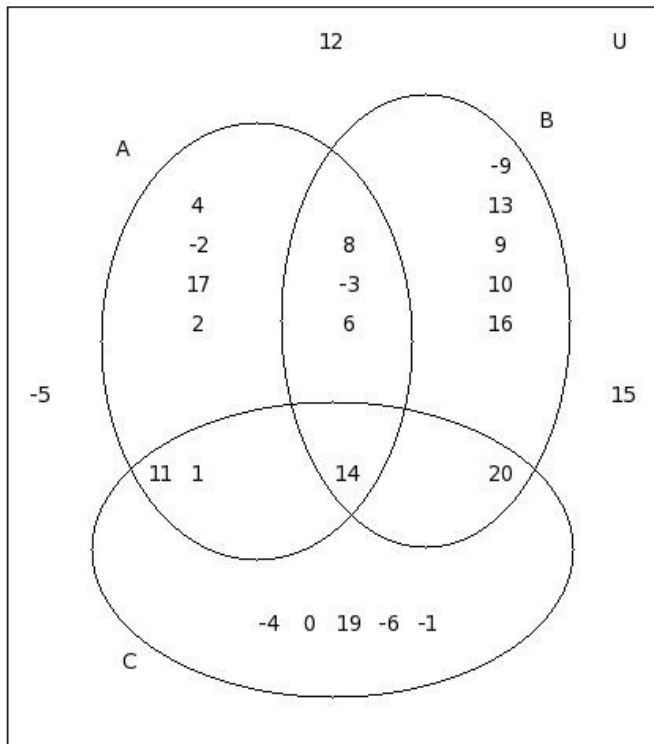
- (i)  $\{-6, 7, 15, 16, 6, -7, -8, 5, -3\}$  (ii)  $\{-6, 15, 16, 6, -7, -8, 5, 8\}$  (iii)  $\{-6, 7, 15, 16, 6, -7, -8, 5\}$  (iv)  $\{-6, 7, 15, 16, 6, -8, 5, -3\}$   
 (v)  $\{7, 15, 16, 6, -7, -8, 5\}$

6. Find  $C - (A \cap B)$



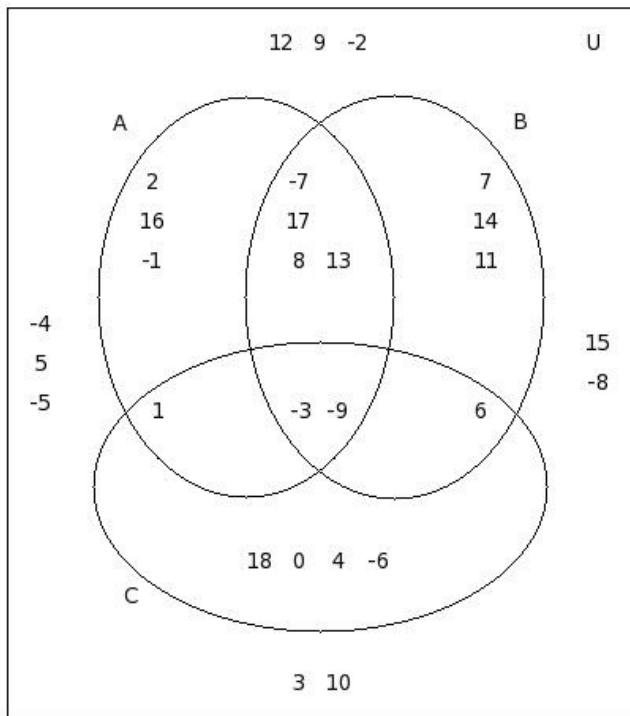
- (i)  $\{-8, -1, 15, 0, 10, 9, 11, 13\}$  (ii)  $\{-8, -1, 15, 0, 10, 9, 11\}$  (iii)  $\{-8, -1, 15, 0, 10, 11\}$  (iv)  $\{-8, -1, 15, 0, 10, 9, 13\}$   
 (v)  $\{-8, -1, 15, 0, 10, 9, -9\}$

7. Find  $A - (A \cap (B \cap C))$



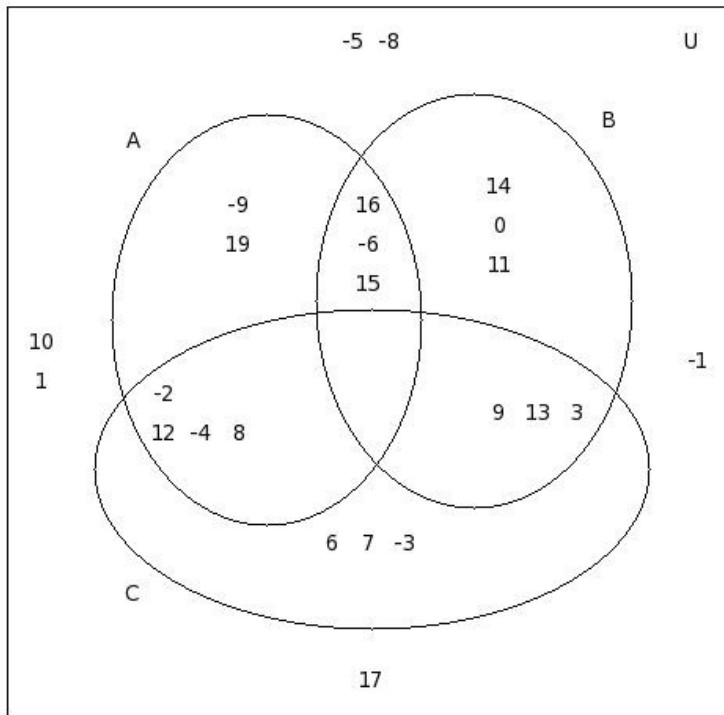
- (i) {11,6,1,17,-2,2,4,8,9} (ii) {11,6,-3,1,17,-2,2,8,20} (iii) {11,6,-3,1,17,-2,2,4,8,9}  
 (iv) {11,6,-3,1,17,-2,2,4,8} (v) {6,-3,1,17,-2,2,4,8}

8. Find  $B - (A \cap (B \cap C))$



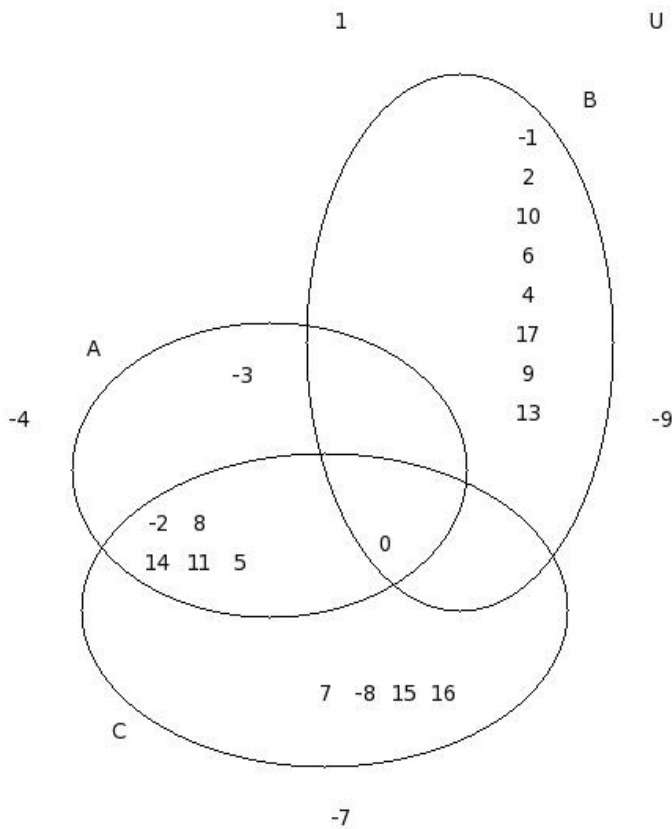
- (i) {14,11,13,7,6,17,8} (ii) {14,-7,11,13,7,6,17,-6} (iii) {14,-7,11,13,6,17,8,10}  
 (iv) {14,-7,11,13,7,6,17,8,10} (v) {14,-7,11,13,7,6,17,8}

9. Find  $C - (A \cap (B \cap C))$



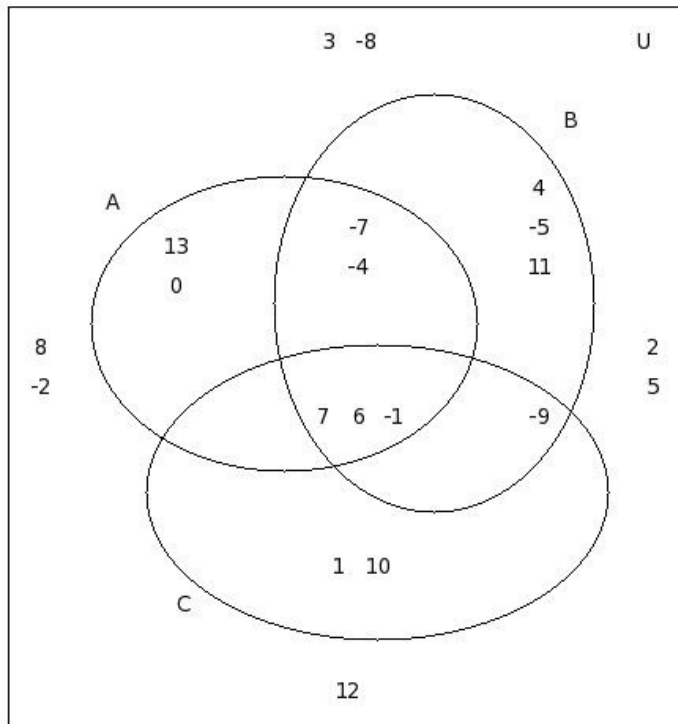
- (i)  $\{3, 9, 6, -3, 13, 8, 12, 7, -4\}$  (ii)  $\{3, 6, -3, 13, 8, 12, -2, 7, -4, -5\}$  (iii)  $\{3, 9, 6, -3, 13, 8, 12, -2, 7, -4\}$   
 (iv)  $\{3, 9, 6, -3, 13, 8, 12, -2, 7, -4, -5\}$  (v)  $\{9, 6, -3, 13, 8, 12, -2, 7, -4, -1\}$

10. Find  $(A - B) \cap (A - C)$



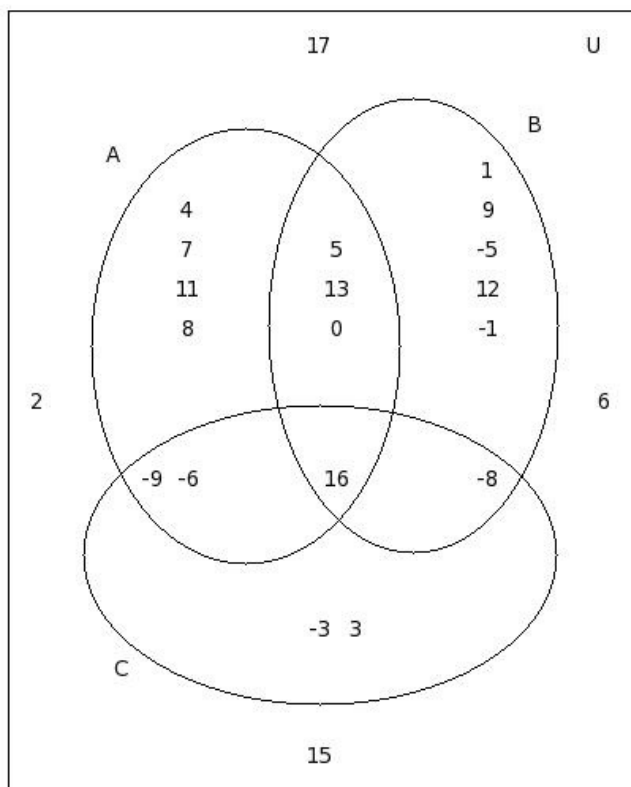
- (i)  $\{-3\}$  (ii)  $\{-3, -2\}$  (iii)  $\{-2\}$  (iv)  $\{\}$  (v)  $\{15\}$

11. Find  $(B - C) \cap (B - A)$



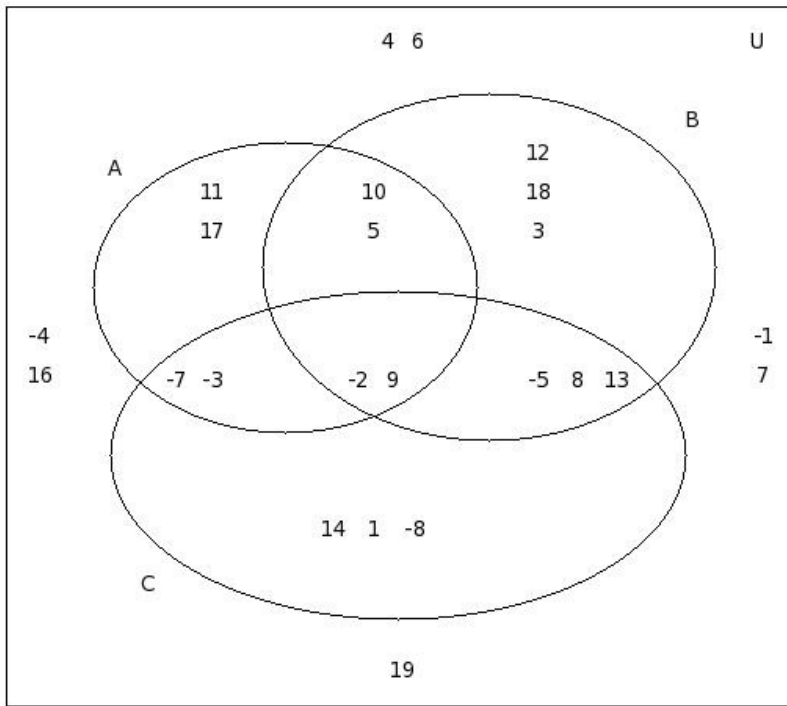
- (i) {11,-5,4,7} (ii) {11,4,7} (iii) {11,-5,13} (iv) {11,-5} (v) {11,-5,4}

12. Find  $(C - A) \cap (C - B)$



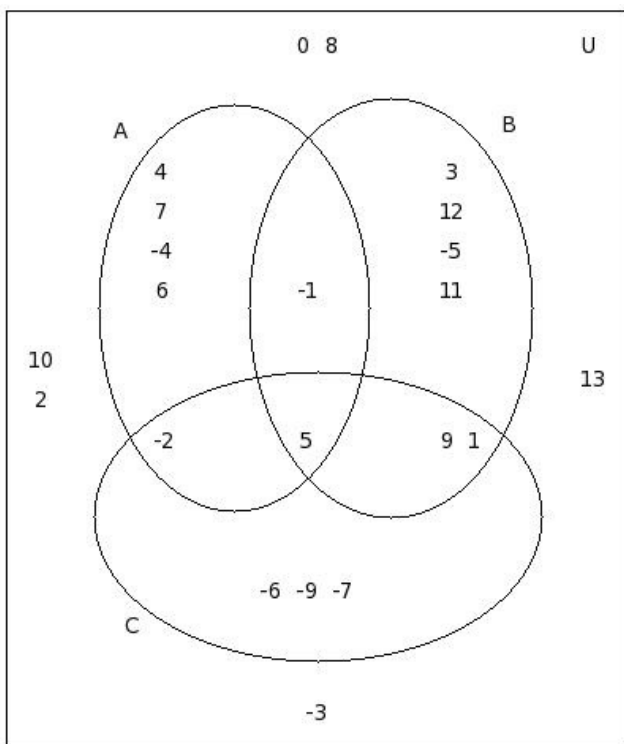
- (i) {-3,3} (ii) {3,8} (iii) {-3,3,0} (iv) {-3} (v) {3,0}

13. Find  $(A - B) \cup (A - C)$



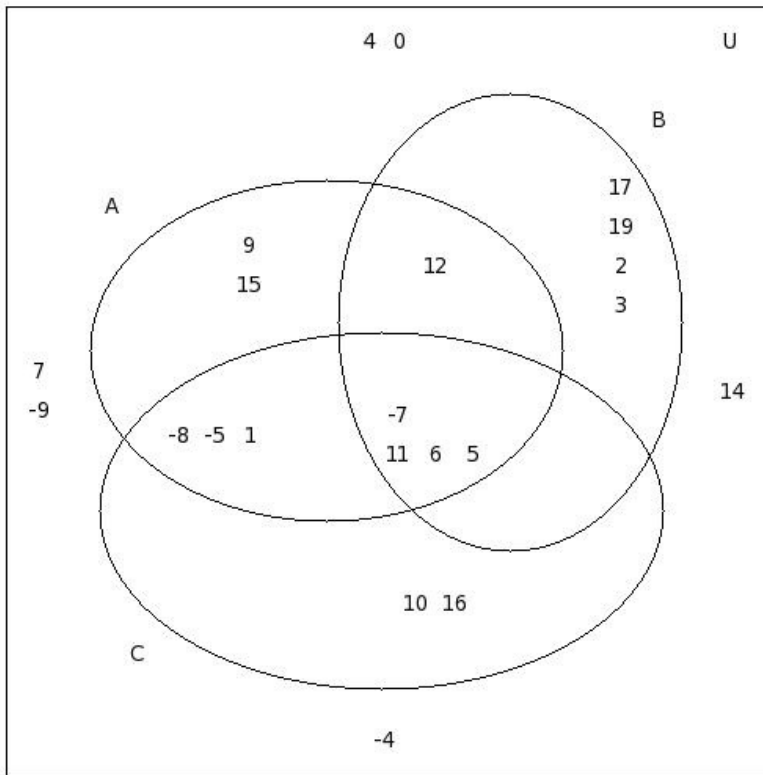
- (i)  $\{5, 10, 11, -3, 17, -4\}$  (ii)  $\{5, 10, 11, -7, -3, 12\}$  (iii)  $\{5, 10, 11, -7, -3, 17, -4\}$  (iv)  $\{5, 10, 11, -7, -3, 17\}$   
 (v)  $\{5, 11, -7, -3, 17\}$

14. Find  $(B - C) \cup (B - A)$



- (i)  $\{-5, 1, 12, 9, 3, -1\}$  (ii)  $\{-5, 1, 12, 9, 11, 3, -1, -2\}$  (iii)  $\{-5, 1, 12, 9, 3, -1, -2\}$  (iv)  $\{-5, 1, 12, 9, 11, 3, -1\}$   
 (v)  $\{-5, 12, 9, 11, 3, -1, -7\}$

15. Find  $(C - A) \cup (C - B)$



- (i)  $\{10, -5, 16, 1, -8, 9\}$  (ii)  $\{10, -5, 16, 1\}$  (iii)  $\{10, -5, 1, -8, 0\}$  (iv)  $\{10, -5, 16, -8, 9\}$  (v)  $\{10, -5, 16, 1, -8\}$

16. If  $\mu = \{-8, 2, -4, 0, 11, 1, -7, 12, 10, -6, -2, 7, 13, -9, 14, 9, 6, -3, 3, -1, 8\}$ ,  $A = \{-8, 2, -4, 0, 11, 1, -7, 12, 10, -6\}$ ,  $B = \{12, -7, 2, -2, 7, 10, 13\}$ ,  $C = \{-8, -9, 0, 1, -4, 7\}$ , find  $A - (B \cup C)$

- (i)  $\{11, 13\}$  (ii)  $\{11, -6\}$  (iii)  $\{11, -6, 13\}$  (iv)  $\{-6\}$  (v)  $\{11\}$

17. If  $\mu = \{-2, -5, 8, -9, 10, 0, 3, 11, 1, -3, -7, 6, 2, 12, 9, -1, -8, 5, 4, 7\}$ ,  $A = \{-2, -5, 8, -9, 10, 0, 3\}$ ,  $B = \{3, 11, 10, 1, -3, -7, 6, 2\}$ ,  $C = \{0, -7, -9, 12, 9, 8\}$ , find  $B - (C \cup A)$

- (i)  $\{1, 11, 2, -3, 6, 4\}$  (ii)  $\{1, 11, 2, 6\}$  (iii)  $\{1, 11, 2, -3, 6\}$  (iv)  $\{1, 11, 2, -3, 4\}$  (v)  $\{1, 11, 2, -3\}$

18. If  $\mu = \{3, -6, 5, -7, 13, 9, 12, 1, 11, 7, -4, 6, -1, -5, 8, -2, -9, 0, 2\}$ ,  $A = \{3, -6, 5, -7, 13, 9, 12\}$ ,  $B = \{1, -6, 11, 7, -7, -4, 5\}$ ,  $C = \{6, -1, 9, -5, 11, -4, -6, 8\}$ , find  $C - (A \cup B)$

- (i)  $\{6, -1, 8\}$  (ii)  $\{6, -1, -5, 8, 3\}$  (iii)  $\{6, -5, 8, 2\}$  (iv)  $\{6, -1, 8, 3\}$  (v)  $\{6, -1, -5, 8\}$

19. If  $\mu = \{19, 18, 13, 16, 9, 12, 14, 11, -6, 20, -2, -1, 15, 17, 5, -8, 7, 4, -9, 0, 6, 10, -5\}$ ,  $A = \{19, 18, 13, 16, 9, 12, 14, 11, -6, 20\}$ ,  $B = \{-2, 9, 13, 11, -1, -6, 15, 16, 17\}$ ,  $C = \{9, 14, -2, 5, -8, 7, 13, 4, 18, -9\}$ , find  $A - (B \cap C)$

- (i)  $\{20, -6, 16, 11, 19, 12, 14, 18, 9\}$  (ii)  $\{20, -6, 16, 19, 12, 14, 18\}$  (iii)  $\{20, -6, 16, 11, 19, 14, 18\}$   
 (iv)  $\{20, -6, 16, 11, 19, 12, 14, 18\}$  (v)  $\{20, -6, 16, 11, 19, 14, 18, 9\}$

20. If  $\mu = \{12, 1, 9, -6, 13, -1, -8, 4, 8, -7, 7, -3, 2, -4, 5, 14, -2, -9, 0, 3\}$ ,  $A = \{12, 1, 9, -6, 13, -1, -8, 4\}$ ,  $B = \{8, -7, 7, -3, 2, -4, 13\}$ ,  $C = \{1, -4, -7, 13, 5, 4, 14, -2\}$ , find  $B - (C \cap A)$

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

21. If  $\mu = \{10, 16, -1, -6, 8, 15, 6, 2, 7, 13, -8, 12, -9, 14, 11, 0, 1, -3, 17, 4, -7, 18, 19\}$ ,  $A = \{10, 16, -1, -6, 8, 15, 6, 2, 7\}$ ,  $B = \{13, -8, 7, 2, 12, 16, -9, 14, 11, -1\}$ ,  $C = \{0, 10, 1, 7, -8, -6, -3, 17, 4\}$ , find  $C - (A \cap B)$

- (i)  $\{4, 10, -8, 17, -3, 0, 1\}$  (ii)  $\{4, 10, -8, 17, -3, -6, 0, 1\}$  (iii)  $\{4, 10, -8, 17, -3, -6, 0, 1, 13\}$  (iv)  $\{4, 10, -8, 17, -3, 0, 1, 13\}$   
 (v)  $\{4, 10, -8, 17, -3, -6, 1\}$

22. If  $\mu = \{-1,16,-6,-7,0,8,1,12,-8,14,17,2,3,7,10,4,9,11,13,-5,-4\}$ ,  $A = \{-1,16,-6,-7,0,8,1,12,-8\}$ ,  $B = \{14,17,2,3,7,-7,10\}$ ,  $C = \{-7,0,12,4,9,-8,2,-1,11,13\}$ , find  $A - (A \cap (B \cap C))$   
 (i)  $\{-8,-6,16,0,8,-1,12,1\}$  (ii)  $\{-8,-6,0,8,-1,12,1,9\}$  (iii)  $\{-8,-6,16,0,8,-1,12,1,9\}$  (iv)  $\{-8,-6,0,8,-1,12,1\}$   
 (v)  $\{-8,16,0,8,-1,12,1\}$
23. If  $\mu = \{-1,13,9,0,-2,3,11,-8,-7,2,-5,8,-3,5,-4,1,10,12,-6,14,15,4,-9\}$ ,  $A = \{-1,13,9,0,-2,3\}$ ,  $B = \{11,-8,-7,-1,2,-2,-5,8\}$ ,  $C = \{13,-3,-2,5,-4,-5,3,-7,1,10\}$ , find  $B - (A \cap (B \cap C))$   
 (i)  $\{-5,-8,2,11,-1,-7\}$  (ii)  $\{-5,-8,8,2,11,-1,-7,13\}$  (iii)  $\{-5,-8,2,11,-1,-7,13\}$  (iv)  $\{-5,-8,8,2,11,-7\}$   
 (v)  $\{-5,-8,8,2,11,-1,-7\}$
24. If  $\mu = \{12,11,-5,-9,16,3,14,-2,-6,17,2,5,0,9,10,7,1,6,-8,-1,13,8,-7,-4,4\}$ ,  $A = \{12,11,-5,-9,16,3,14,-2\}$ ,  $B = \{-5,-6,17,2,16,5,0,-2,9\}$ ,  $C = \{-9,10,5,7,1,17,6,3,-8\}$ , find  $C - (A \cap (B \cap C))$   
 (i)  $\{7,6,3,5,1,-9,10,-8,4\}$  (ii)  $\{7,6,3,5,1,17,-9,10,-8,4\}$  (iii)  $\{7,6,3,5,1,-9,10,-8\}$  (iv)  $\{7,6,3,5,1,17,-9,10,-8\}$   
 (v)  $\{7,6,3,5,1,17,-9,10\}$
25. If  $\mu = \{-4,-8,8,-9,-7,-2,7,4,13,16,-5,-6,5,11,12,9,2,15,3,6,14\}$ ,  $A = \{-4,-8,8,-9,-7,-2,7\}$ ,  $B = \{4,13,16,-2,-5,-6,7,5\}$ ,  $C = \{-5,11,-4,12,4,16,8,9,-7,2\}$ , find  $(A - B) \cap (A - C)$   
 (i)  $\{-9,-8\}$  (ii)  $\{-9,-8,5\}$  (iii)  $\{-9\}$  (iv)  $\{-8\}$  (v)  $\{-9,5\}$
26. If  $\mu = \{6,-4,-6,5,10,4,12,8,-2,-7,-8,16,17,18,14,-9,3,15,-3,9,1,7,11\}$ ,  $A = \{6,-4,-6,5,10,4,12,8,-2,-7\}$ ,  $B = \{4,-6,-8,-7,16,10,17,18\}$ ,  $C = \{5,18,16,14,-9,-8,-7,3,12\}$ , find  $(B - C) \cap (B - A)$   
 (i)  $\{\}$  (ii)  $\{-3\}$  (iii)  $\{17\}$  (iv)  $\{17,-3\}$  (v)  $\{6\}$
27. If  $\mu = \{11,-3,7,-6,-7,-2,10,-5,8,13,18,6,0,12,15,2,4,1,17,3,-8,5,-1\}$ ,  $A = \{11,-3,7,-6,-7,-2,10,-5,8\}$ ,  $B = \{-3,13,7,8,10,18,-5,-6\}$ ,  $C = \{6,11,0,-7,12,18,13,15,2,4\}$ , find  $(C - A) \cap (C - B)$   
 (i)  $\{2,15,6,12,0,4\}$  (ii)  $\{2,15,12,0,4,7\}$  (iii)  $\{2,15,6,0,4\}$  (iv)  $\{2,15,6,12,0,4,7\}$  (v)  $\{2,15,12,0,4\}$
28. If  $\mu = \{12,2,-9,10,-6,7,4,5,-1,-3,11,-8,8,-7,9,6,0,3,-4,-5\}$ ,  $A = \{12,2,-9,10,-6,7,4\}$ ,  $B = \{4,5,10,7,-6,-1,12\}$ ,  $C = \{-3,2,11,7,4,-8,8,-7\}$ , find  $(A - B) \cup (A - C)$   
 (i)  $\{2,10,12,-9\}$  (ii)  $\{2,10,-6,12,-9,-5\}$  (iii)  $\{2,-6,12,-9\}$  (iv)  $\{2,10,12,-9,-5\}$  (v)  $\{2,10,-6,12,-9\}$
29. If  $\mu = \{9,13,-6,-4,2,8,-9,-7,6,0,1,11,12,16,3,-1,-2,4,15,5,7,-8\}$ ,  $A = \{9,13,-6,-4,2,8\}$ ,  $B = \{8,13,-9,-7,6,0,9,2,1,11\}$ ,  $C = \{8,12,11,-4,6,16,3,-9,-1\}$ , find  $(B - C) \cup (B - A)$   
 (i)  $\{11,0,1,2,6,13,9,-9,-7,16\}$  (ii)  $\{11,0,1,2,6,13,-9,-7\}$  (iii)  $\{11,0,1,2,6,13,-9,-7,-2\}$   
 (iv)  $\{11,0,1,2,6,13,9,-9,-7\}$  (v)  $\{11,0,1,2,6,13,-9,-7,16\}$
30. If  $\mu = \{0,11,10,-1,9,8,7,1,13,-2,5,-5,-8,4,2,-6,-3,-4,12,3,-7\}$ ,  $A = \{0,11,10,-1,9,8\}$ ,  $B = \{7,1,13,-2,5,-1\}$ ,  $C = \{0,11,-5,-1,1,8,-2,-8,4,2\}$ , find  $(C - A) \cup (C - B)$   
 (i)  $\{1,-8,0,-2,11,-5,2,8\}$  (ii)  $\{1,-8,0,4,-2,11,-5,2,8\}$  (iii)  $\{1,-8,0,4,-2,11,2,8,5\}$  (iv)  $\{1,-8,0,4,-2,11,-5,2,8,5\}$   
 (v)  $\{1,-8,0,4,-2,11,2,8\}$

## Assignment Key

1) (iv)	2) (ii)	3) (v)	4) (i)	5) (iii)	6) (ii)
7) (iv)	8) (v)	9) (iii)	10) (i)	11) (v)	12) (i)
13) (iv)	14) (iv)	15) (v)	16) (ii)	17) (iii)	18) (v)
19) (iv)	20) (ii)	21) (ii)	22) (i)	23) (v)	24) (iv)
25) (i)	26) (iii)	27) (i)	28) (v)	29) (iv)	30) (ii)