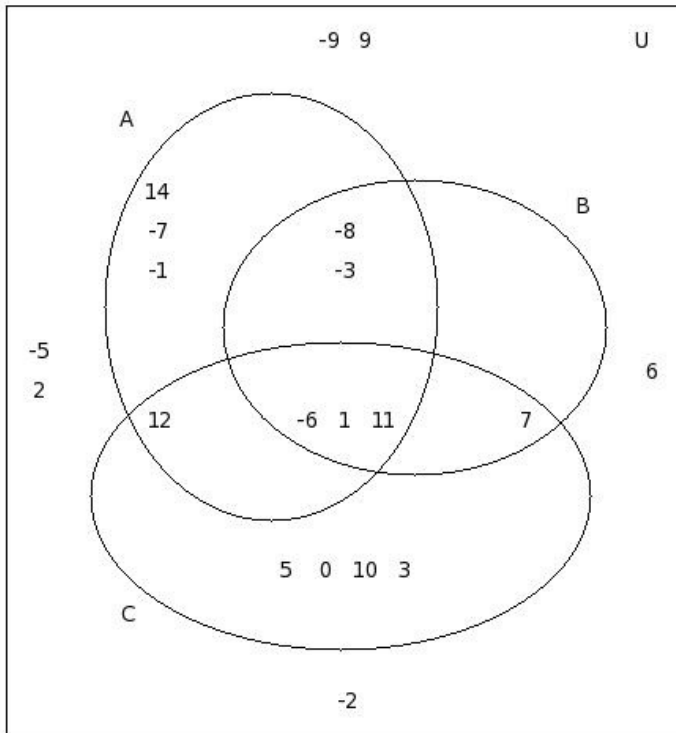


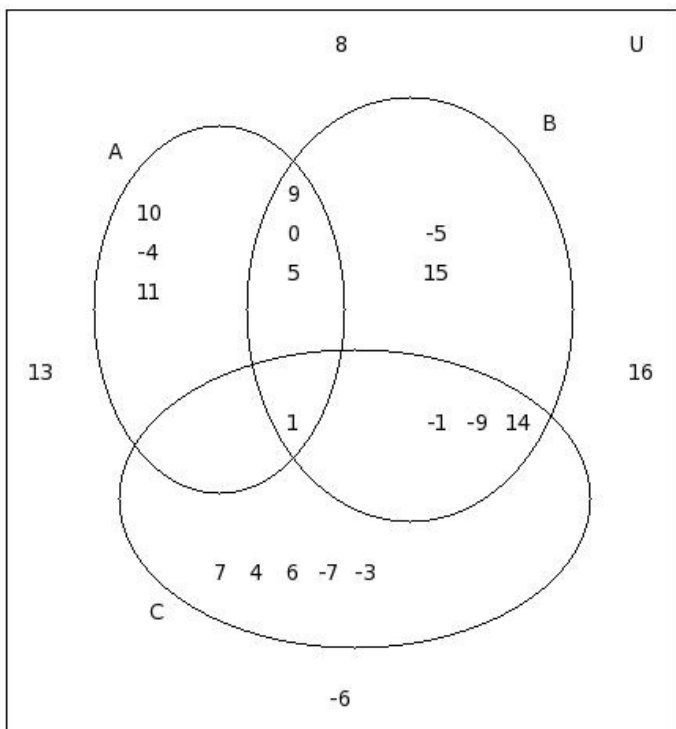


1. Find $(B \cup C)'$



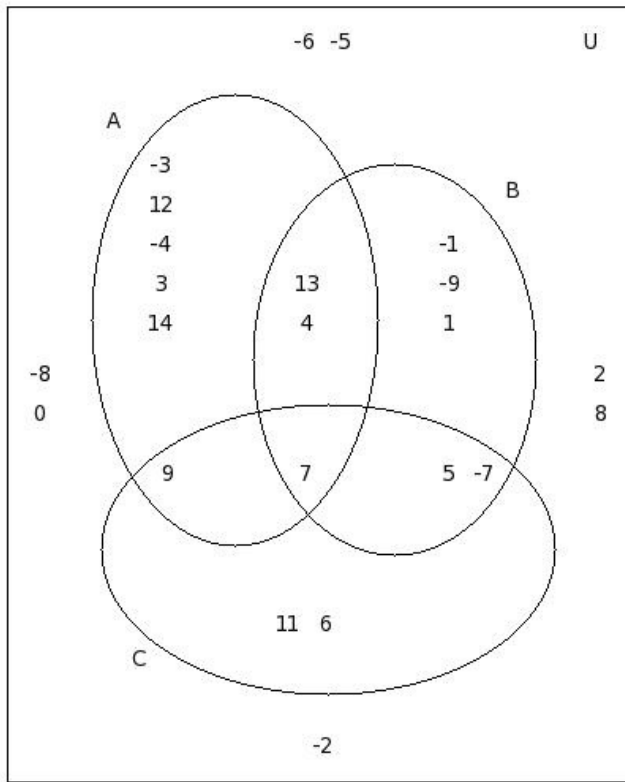
- (i) $\{-1, 9, -2, 6, -9, 14, -5, -7, 2, 0\}$ (ii) $\{-1, 9, -2, 6, 14, -5, -7, 2, 11\}$ (iii) $\{-1, 9, -2, 6, -9, 14, -5, -7, 2\}$
 (iv) $\{-1, -2, 6, -9, 14, -5, -7, 2\}$ (v) $\{-1, -2, 6, -9, 14, -5, -7, 2, 0\}$

2. Find $(C \cup A)'$



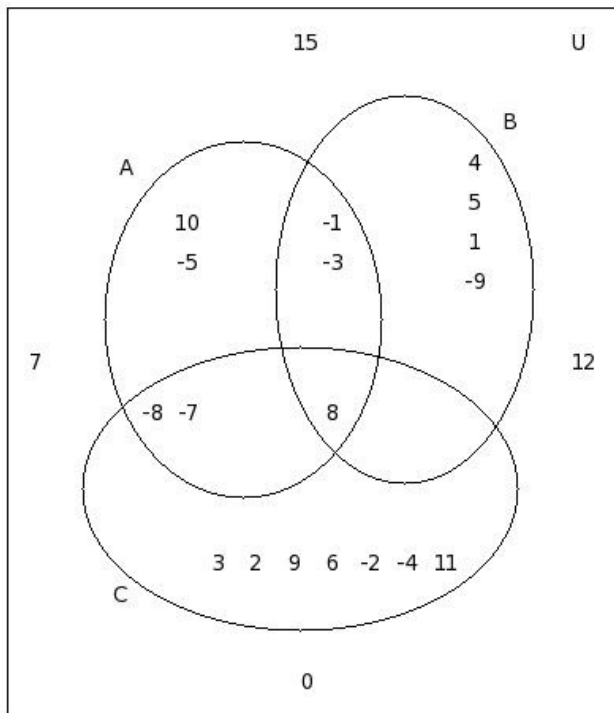
- (i) $\{-6, -5, 13, 15, 16\}$ (ii) $\{-6, -5, 8, 13, 15, 16, -9\}$ (iii) $\{-5, 8, 13, 15, 16, 14\}$ (iv) $\{-6, -5, 8, 13, 15, 16\}$
 (v) $\{-6, -5, 8, 13, 15, -9\}$

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



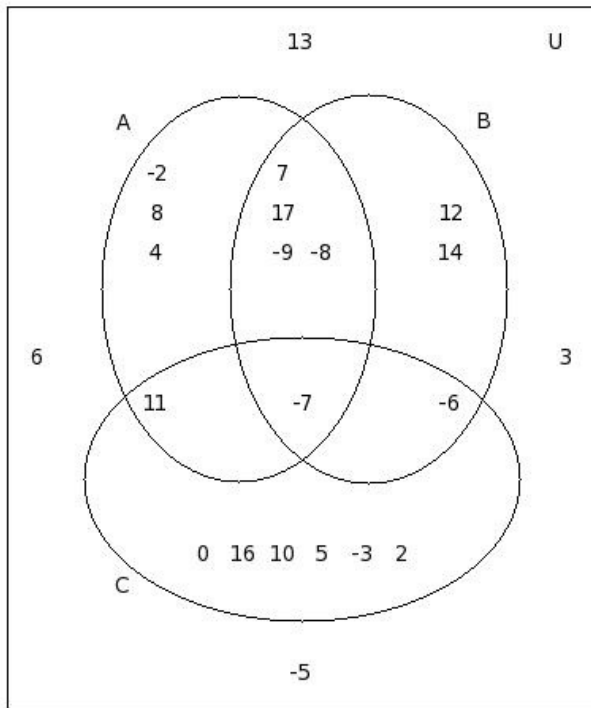
- (i) $\{-2, -8, 8, -5, 2, 0, -7\}$ (ii) $\{-2, -6, 8, -5, 2, 0, 1\}$ (iii) $\{-2, -6, -8, 8, -5, 2, 0, 1\}$ (iv) $\{-2, -6, -8, 8, 2, 0\}$
 (v) $\{-2, -6, -8, 8, -5, 2, 0\}$

4. Find $(A \cap B)'$



- (i) $\{11, -5, 2, -7, 6, 1, -9, 12, 5, 7, -4, 4, 10, -8, 9, 15, 3, -2, 8\}$ (ii) $\{11, -5, 2, -7, 6, 1, -9, 12, 5, 7, 0, -4, 4, 10, -8, 9, 15, 3, -2\}$
 (iii) $\{11, -5, 2, -7, 6, 1, -9, 12, 5, 7, 0, -4, 4, 10, -8, 9, 15, 3, -2, -1\}$ (iv) $\{-5, 2, -7, 6, 1, -9, 12, 5, 7, 0, -4, 4, 10, -8, 9, 15, 3, -2\}$
 (v) $\{11, -5, 2, -7, 6, 1, -9, 12, 7, 0, -4, 4, 10, -8, 9, 15, 3, -2, -1\}$

5. Find $(B \cap C)'$



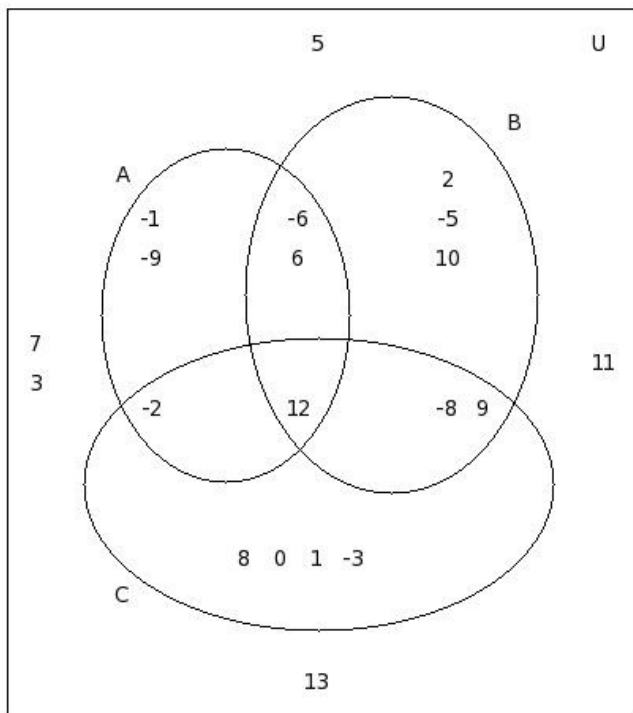
(i) $\{4, -5, 10, -2, -3, 7, 17, 0, 5, 12, -9, 16, 8, 13, 11, 2, 14, 6, -8, 3, -7\}$

(ii) $\{4, -5, 10, -2, -3, 7, 17, 0, 5, 12, -9, 8, 13, 11, 2, 14, 6, -8, 3, -7\}$

(iii) $\{4, -5, 10, -2, -3, 7, 17, 0, 5, 12, -9, 16, 13, 11, 2, 14, 6, -8, 3, -6\}$

(iv) $\{4, -5, 10, -2, -3, 7, 17, 0, 12, -9, 16, 8, 13, 11, 2, 14, 6, -8, 3\}$ (v) $\{4, -5, 10, -2, -3, 7, 17, 0, 5, 12, -9, 16, 8, 13, 11, 2, 14, 6, -8, 3\}$

6. Find $(C \cap A)'$

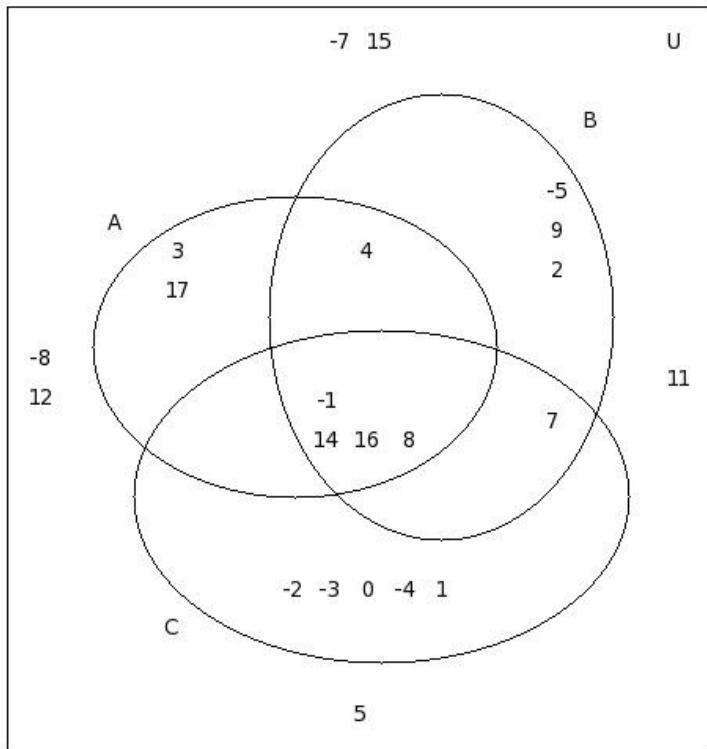


(i) $\{3, 1, 6, -6, -9, 10, 2, -8, -1, 9, 0, 7, -3, 11, 5, 13, -5, 8, -2\}$ (ii) $\{3, 1, 6, -6, -9, 10, 2, -8, -1, 9, 0, 7, -3, 11, 5, 13, -5, 8\}$

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

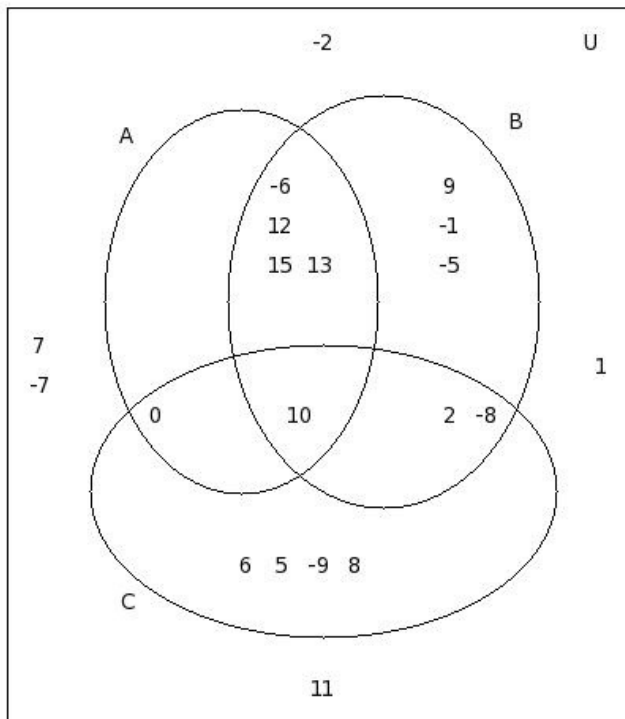
(v) $\{3, 1, 6, -9, 10, 2, -8, -1, 9, 0, 7, -3, 11, 5, 13, -5, 8, -2\}$

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



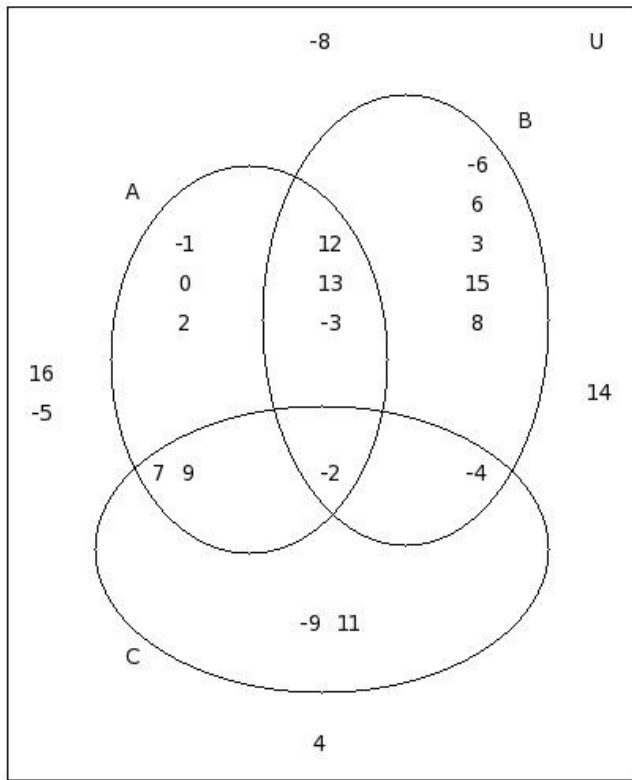
- (i) $\{12, -8, -7, 3, 7, 4, -5, 15, -3, 9, -4, 1, -2, 0, 2, 11, 17, 5, -1\}$ (ii) $\{12, -8, -7, 3, 4, -5, 15, -3, 9, -4, 1, -2, 0, 2, 11, 17, 5, 16\}$
 (iii) $\{12, -8, -7, 3, 7, 4, -5, 15, -3, 9, -4, 1, -2, 0, 2, 11, 5, -1\}$ (iv) $\{12, -8, -7, 3, 7, 4, -5, 15, -3, 9, -4, 1, -2, 0, 11, 17, 5\}$
 (v) $\{12, -8, -7, 3, 7, 4, -5, 15, -3, 9, -4, 1, -2, 0, 2, 11, 17, 5\}$

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



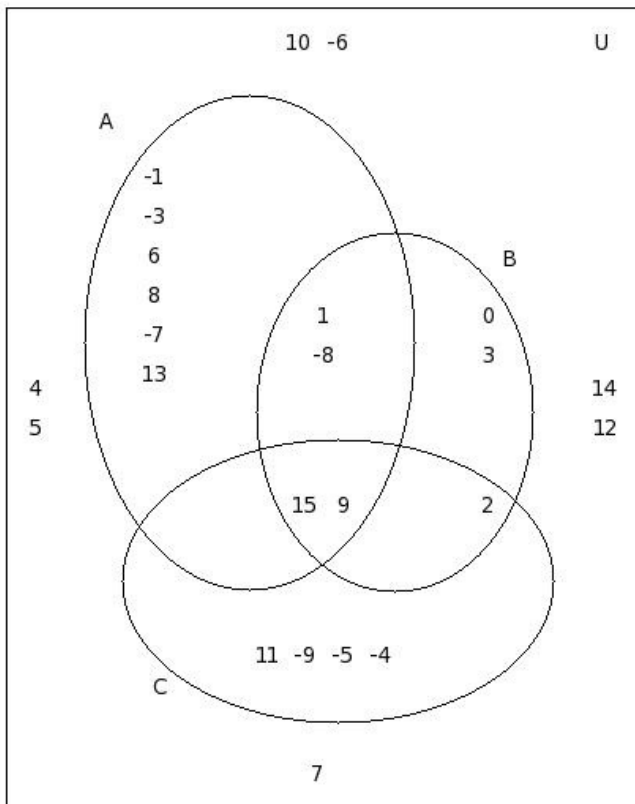
- (i) $\{2, -9, 9, -1, 10, 5, -5, 8, 1, 6, 7, -7, 11, -2, 13\}$ (ii) $\{2, -9, 9, -8, -1, 10, 5, -5, 8, 1, 6, 7, -7, 11, -2, 12\}$
 (iii) $\{2, -9, -8, -1, 10, 5, -5, 8, 1, 6, 7, -7, 11, -2, 12\}$ (iv) $\{2, -9, 9, -8, -1, 10, 5, -5, 8, 1, 6, 7, -7, 11, -2\}$
 (v) $\{2, -9, 9, -8, -1, 10, 5, 8, 1, 6, 7, -7, 11, -2\}$

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



- (i) $\{14, 11, 7, -5, 9, 2, -9, -2, 4, 0, -8, 16, -1\}$ (ii) $\{14, 11, 7, -5, 9, 2, -9, -2, 4, -8, 16, -1, 8\}$
 (iii) $\{14, 11, 7, -5, 9, 2, -9, -2, 4, 0, -8, 16, -3\}$ (iv) $\{14, 11, 7, -5, 9, -9, -2, 4, 0, -8, 16, -1\}$
 (v) $\{14, 11, 7, -5, 9, 2, -9, -2, 4, 0, -8, 16, -1, -3\}$

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

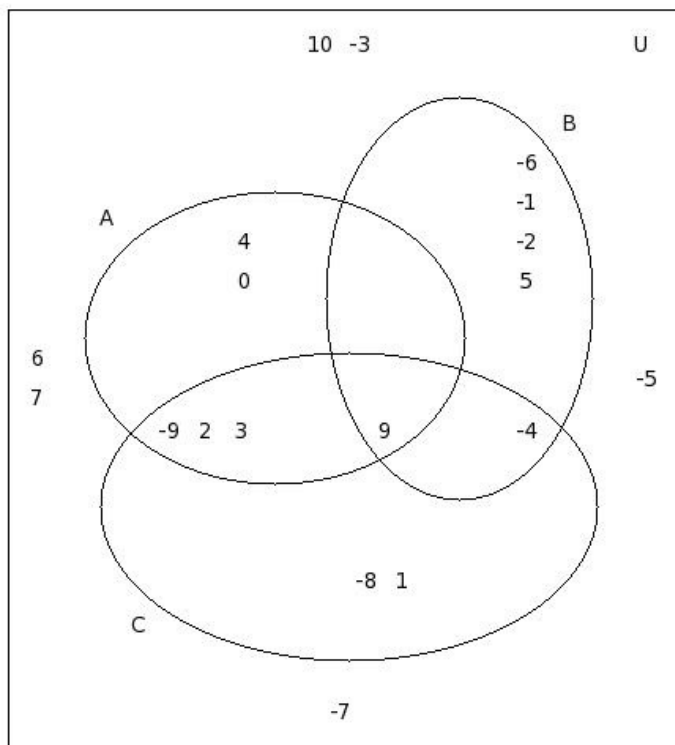


- (i) $\{7, -3, 15, 6, 8, 1, 5, 13, -6, 3, 0, 12, 10, 9, -1, 4, -8, 14\}$ (ii) $\{7, -3, 15, -7, 6, 8, 1, 5, 13, -6, 3, 0, 12, 10, 9, -1, 4, 14, -5\}$
 (iii) $\{7, -3, 15, -7, 6, 8, 1, 5, 13, -6, 3, 0, 12, 10, 9, -1, 4, -8, 14, 2\}$ (iv) $\{7, -3, 15, -7, 6, 8, 1, 5, 13, -6, 3, 0, 12, 10, 9, -1, 4, -8, 14\}$
 (v) $\{7, -3, -7, 6, 8, 1, 5, 13, -6, 3, 0, 12, 10, 9, -1, 4, -8, 14, 2\}$

11. If $\mu = \{18,10,17,-3,-7,7,2,9,14,12,3,-6,8,-1,11,16,-4,-5,-8,15,0,-2\}$, $A = \{18,10,17,-3,-7,7,2,9\}$, $B = \{14,12,-7,18,3,7,-6,10,17,8\}$, $C = \{8,18,-1,11,14,16,-4,17,10\}$, find A'
- (i) $\{3,12,8,-5,-2,-4,15,16,-6,-8,11,-1,14\}$ (ii) $\{3,12,8,-5,-2,-4,15,16,-6,0,-8,11,-1,14,18\}$
- (iii) $\{3,12,8,-2,-4,15,16,-6,0,-8,11,-1,14\}$ (iv) $\{3,12,8,-5,-2,-4,15,16,-6,-8,11,-1,14,18\}$
- (v) $\{3,12,8,-5,-2,-4,15,16,-6,0,-8,11,-1,14\}$
-
12. If $\mu = \{7,10,4,9,6,-3,8,11,-1,1,-7,-9,5,-4,3,-8,-5,13,0,-2,14\}$, $A = \{7,10,4,9,6,-3,8,11,-1\}$, $B = \{7,9,1,6,-7,-1,-3\}$, $C = \{-7,-9,5,-1,-4,1,3\}$, find B'
- (i) $\{13,11,-4,14,-9,-8,-5,0,-2,5,10,3,8,7\}$ (ii) $\{13,11,-4,14,-9,4,-8,-5,0,-2,5,10,3,8\}$
- (iii) $\{13,11,-4,14,-9,4,-8,-5,0,5,10,3,8\}$ (iv) $\{13,11,-4,14,-9,-8,-5,0,-2,5,10,3,8\}$
- (v) $\{13,11,-4,14,-9,4,-8,-5,0,-2,5,10,3,8,7\}$
-
13. If $\mu = \{-1,12,-3,11,-2,4,-6,9,8,-7,16,2,-8,13,5,-5,18,3,15,-4,14,0\}$, $A = \{-1,12,-3,11,-2,4,-6,9,8\}$, $B = \{8,-6,9,-7,11,16,2,-8,13,-3\}$, $C = \{5,16,2,-2,-5,-7,8,13\}$, find C'
- (i) $\{-8,12,11,-1,-6,-4,9,4,15,-3,18,0,14,3\}$ (ii) $\{-8,12,11,-1,-6,-4,9,4,15,-3,0,14,3\}$
- (iii) $\{-8,12,11,-1,-6,-4,9,4,15,-3,0,14,3,2\}$ (iv) $\{-8,12,11,-1,-6,-4,9,4,15,-3,18,0,14\}$
- (v) $\{-8,12,11,-1,-6,-4,9,4,15,-3,18,0,14,3,2\}$
-
14. If $\mu = \{-7,-5,8,2,-3,9,-1,-2,0,11,-4,-9,14,13,6,5,12,3\}$, $A = \{-7,-5,8,2,-3,9,-1\}$, $B = \{8,-2,-5,9,-1,0,11,-4,-9,-7\}$, $C = \{-9,-4,-1,14,9,13\}$, find $(A \cup B)'$
- (i) $\{6,14,13,12,5\}$ (ii) $\{6,14,13,3,5,-9\}$ (iii) $\{6,14,13,12,3,5\}$ (iv) $\{6,14,13,3,5\}$ (v) $\{6,14,13,12,3,5,-9\}$
-
15. If $\mu = \{4,6,14,8,9,13,-6,-3,-2,1,-9,7,10,15,-5,0,5,3,12,-8,-7,-4\}$, $A = \{4,6,14,8,9,13,-6,-3\}$, $B = \{-2,6,1,-9,7,-6\}$, $C = \{14,10,15,-9,-5,0,1,7,-6,13\}$, find $(B \cup C)'$
- (i) $\{5,-7,-4,-8,-3,4,9,3,8\}$ (ii) $\{5,-7,-4,-8,-3,4,12,9,3,8,-2\}$ (iii) $\{5,-7,-4,-3,4,12,9,3,8\}$
- (iv) $\{5,-7,-4,-8,-3,4,12,9,3,8\}$ (v) $\{5,-7,-4,-8,-3,4,9,3,8,-2\}$
-
16. If $\mu = \{0,6,13,3,14,12,10,-9,-7,-3,4,9,-2,7,-6,-5,11,5,8,2,-1,-8,-4\}$, $A = \{0,6,13,3,14,12,10,-9,-7,-3\}$, $B = \{4,9,-7,12,10,-2,6\}$, $C = \{7,-6,-5,0,11,3\}$, find $(C \cup A)'$
- (i) $\{9,-8,-2,-1,2,-4,4,8,0\}$ (ii) $\{9,-8,-2,5,-1,2,-4,4,8,0\}$ (iii) $\{9,-8,-2,5,-1,2,-4,4,8\}$ (iv) $\{9,-8,-2,5,-1,-4,4,8\}$
- (v) $\{9,-8,-2,-1,2,-4,4,8\}$
-
17. If $\mu = \{-9,15,2,5,-8,1,13,0,-5,8,9,-7,14,11,3,-2,12,7,4,-1,6\}$, $A = \{-9,15,2,5,-8,1,13,0,-5,8\}$, $B = \{9,-7,14,2,11,15,3,8\}$, $C = \{13,-2,3,15,12,7\}$, find $(A \cup B \cup C)'$
- (i) $\{6,-1,4,-8\}$ (ii) $\{6,-1\}$ (iii) $\{-1,4\}$ (iv) $\{6,-1,4\}$ (v) $\{6,-1,-8\}$
-
18. If $\mu = \{-3,-9,12,8,10,9,-6,2,14,-1,4,5,-5,-4,15,-8,1,0,7,3,-2,6\}$, $A = \{-3,-9,12,8,10,9,-6,2\}$, $B = \{14,10,9,-1,4,5,12\}$, $C = \{-5,-4,15,-8,1,0,9,7,-9\}$, find $(A \cap B)'$
- (i) $\{14,15,4,7,0,2,-1,8,5,-5,1,-3,3,-4,6,-2,-8,-6,-9,12\}$ (ii) $\{14,15,4,7,0,2,-1,8,5,-5,1,-3,3,-4,-2,-8,-6,-9,12\}$
- (iii) $\{14,15,4,7,0,2,-1,8,5,-5,1,-3,3,-4,6,-2,-8,-6,-9\}$ (iv) $\{14,15,4,7,0,2,-1,8,5,-5,1,-3,3,-4,-2,-8,-6,-9\}$
- (v) $\{14,15,4,7,0,2,-1,5,-5,1,-3,3,-4,6,-2,-8,-6,-9\}$
-
19. If $\mu = \{-5,-2,16,13,10,-4,8,14,-6,1,6,9,-8,7,4,12,2,15,11,3,-9,5\}$, $A = \{-5,-2,16,13,10,-4,8\}$, $B = \{14,10,-6,1,-4,13,16,6,9,8\}$, $C = \{1,6,-2,9,-8,7,-4,4\}$, find $(B \cap C)'$
- (i) $\{-5,-2,-6,16,11,10,5,-8,-9,4,8,7,13,2,3,12,14,-4\}$ (ii) $\{-5,-2,-6,16,11,10,5,15,-8,-9,4,8,7,13,2,3,12,14\}$
- (iii) $\{-5,-2,-6,16,11,10,5,15,-8,-9,4,8,7,13,2,3,12,14,-4\}$ (iv) $\{-5,-2,-6,16,11,10,5,15,-8,-9,4,8,7,13,2,3,12\}$
- (v) $\{-5,-2,-6,16,11,10,5,-8,-9,4,8,7,13,2,3,12,14\}$

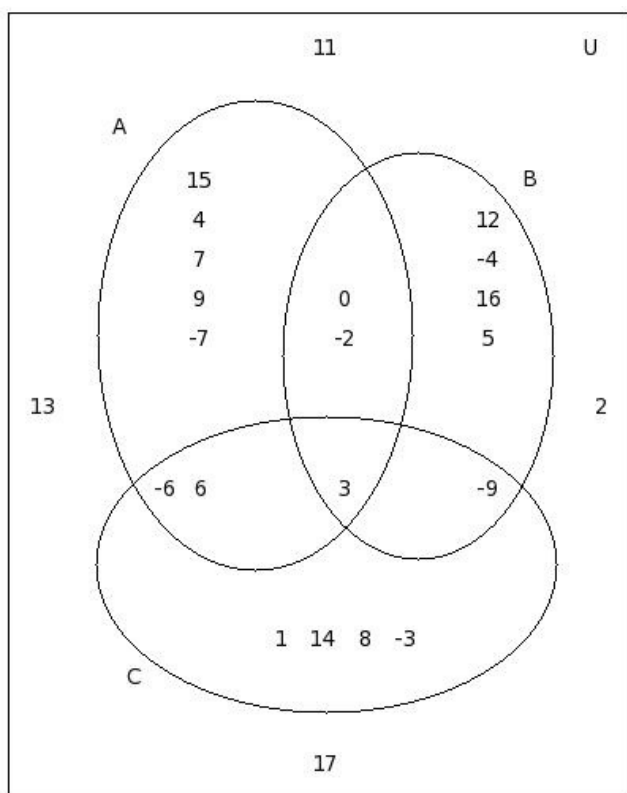
20. If $\mu = \{12,10,7,9,-1,13,-6,-2,2,-8,6,11,-3,8,-5,5,-7,-9,0,1,3,4\}$, $A = \{12,10,7,9,-1,13,-6\}$, $B = \{12,-2,2,-8,6,11,10,-3,8\}$, $C = \{12,7,-6,-5,-2,5\}$, find $(C \cap A)'$
- (i) $\{-7,9,-1,8,-3,2,5,4,1,-5,-8,-2,0,11,-9,6,10,3\}$ (ii) $\{-7,9,-1,8,-3,2,5,4,1,-5,-2,0,11,13,-9,6,10,3\}$
- (iii) $\{-7,9,-1,8,-3,2,5,4,1,-5,-8,-2,0,11,13,-9,6,10,3,12\}$ (iv) $\{-7,9,-1,8,-3,2,5,4,1,-5,-2,0,11,13,-9,6,10,3,12\}$
- (v) $\{-7,9,-1,8,-3,2,5,4,1,-5,-8,-2,0,11,13,-9,6,10,3\}$
-
21. If $\mu = \{-4,-7,-1,11,2,10,-2,4,5,0,-5,1,3,8,13,-9,9,6,12,-8,7,-6\}$, $A = \{-4,-7,-1,11,2,10,-2,4\}$, $B = \{5,-7,11,0,-5,4\}$, $C = \{1,0,3,4,-7,-1,8,13\}$, find $(A \cap B \cap C)'$
- (i) $\{-6,-9,11,13,6,3,8,12,9,1,7,10,5,-2,-5,0,-1,-8,2\}$ (ii) $\{-6,-9,11,13,6,3,8,12,9,1,7,10,5,-2,-5,0,-1,-8,2,-4\}$
- (iii) $\{-6,-9,11,13,6,3,8,12,9,1,7,10,-2,-5,0,-1,-8,2,-4\}$ (iv) $\{-6,-9,11,13,6,3,8,12,9,1,7,10,5,-2,-5,0,-1,-8,2,-4,4\}$
- (v) $\{-6,-9,11,13,6,3,8,12,9,1,7,10,-2,-5,0,-1,-8,2,-4,4\}$
-
22. If $\mu = \{-2,11,12,-5,1,8,9,-4,0,14,-3,-7,6,5,-9,10,7,4,-8,-1,-6,2\}$, $A = \{-2,11,12,-5,1,8,9,-4\}$, $B = \{0,14,9,1,-2,-3,-7,8\}$, $C = \{-4,6,5,-9,-7,10,7\}$, find $(A - (A \cap (B \cap C)))'$
- (i) $\{-3,-7,2,10,4,5,-9,0,7,-6,-8,6,14,-1,12\}$ (ii) $\{-3,-7,2,10,4,5,-9,0,-6,-8,6,14,-1\}$
- (iii) $\{-3,-7,2,10,4,5,-9,0,7,-6,-8,14,-1\}$ (iv) $\{-3,-7,2,10,4,5,-9,0,7,-6,-8,6,14,-1\}$
- (v) $\{-3,-7,2,10,4,5,-9,0,7,-6,-8,14,-1,12\}$
-
23. If $\mu = \{1,-6,7,-1,14,3,9,-7,2,6,-9,13,-3,10,8,0,12,-5,11,4,-2,-8,16\}$, $A = \{1,-6,7,-1,14,3,9,-7\}$, $B = \{2,6,7,-7,-1,-9,13,-6,-3,10\}$, $C = \{8,14,-3,0,13,3,6\}$, find $(B - (A \cap (B \cap C)))'$
- (i) $\{12,16,-8,3,1,11,-5,4,-2,0,9,8,6\}$ (ii) $\{14,12,16,-8,3,1,11,-5,4,0,9,8,-3\}$
- (iii) $\{14,12,16,-8,3,1,11,-5,4,-2,0,9,8,-3\}$ (iv) $\{14,12,16,-8,3,1,11,-5,4,0,9,8\}$
- (v) $\{14,12,16,-8,3,1,11,-5,4,-2,0,9,8\}$
-
24. If $\mu = \{0,7,4,-7,8,-1,3,-6,2,-3,12,5,9,-2,11,-4,-8,-9,10,-5,1\}$, $A = \{0,7,4,-7,8,-1,3,-6\}$, $B = \{2,-3,12,8,-6,5\}$, $C = \{9,-2,-7,7,11,-1,2\}$, find $(C - (A \cap (B \cap C)))'$
- (i) $\{8,-8,4,12,10,-9,-3,-5,1,0,3,-4,5\}$ (ii) $\{8,-8,4,12,10,-9,-5,1,0,3,-4,5,-6\}$
- (iii) $\{8,-8,4,12,10,-9,-3,-5,1,0,3,-4,5,-6,2\}$ (iv) $\{8,-8,4,12,10,-9,-3,-5,1,0,3,-4,5,-6\}$
- (v) $\{8,-8,4,12,10,-9,-3,-5,1,0,3,-4,5,2\}$

25. Find A'



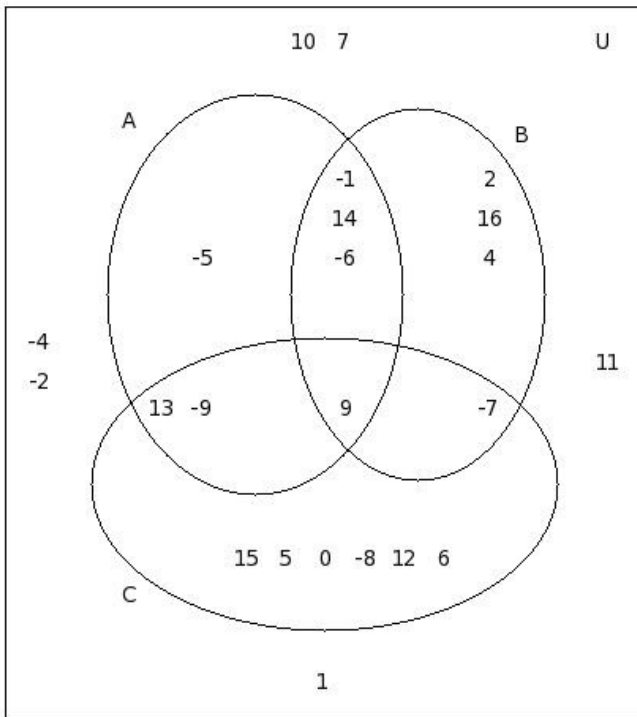
- (i) $\{10, -7, -1, -2, -8, -3, -5, 6, -4, -6, 1, 5, 7, 2\}$ (ii) $\{10, -7, -1, -2, -8, -3, -5, 6, -4, -6, 1, 5, 7\}$
 (iii) $\{10, -7, -1, -2, -8, -5, 6, -4, -6, 1, 5, 7, 3\}$ (iv) $\{10, -7, -1, -2, -8, -5, 6, -4, -6, 1, 5, 7, 2\}$
 (v) $\{10, -7, -1, -2, -3, -5, 6, -4, -6, 1, 5, 7\}$

26. Find B'



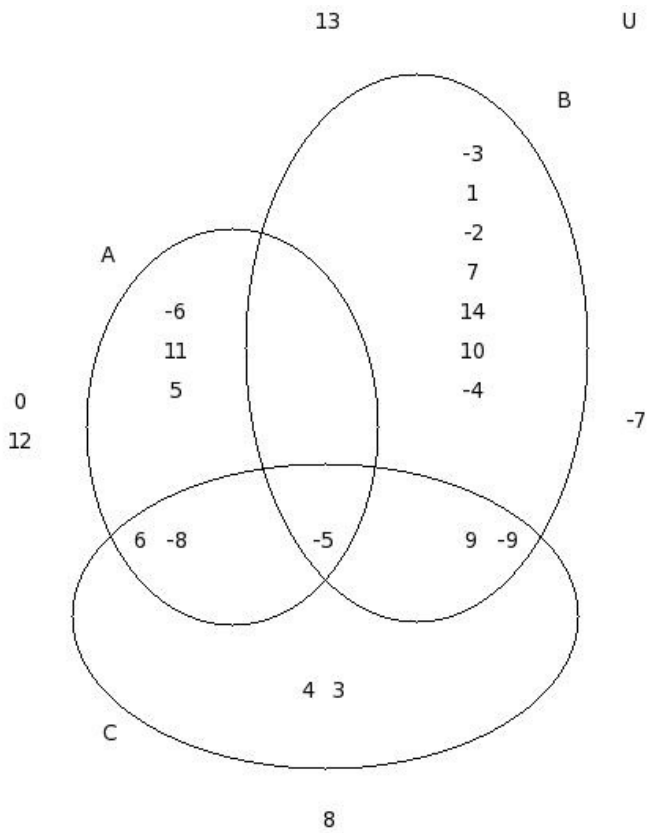
- (i) $\{9, 7, 4, 1, 13, 8, 6, -7, -6, 17, -3, 11, 2, 14, 15\}$ (ii) $\{9, 7, 4, 1, 8, 6, -7, -6, 17, -3, 11, 2, 14, 15, -9\}$
 (iii) $\{9, 7, 4, 1, 13, 8, 6, -7, -6, 17, -3, 11, 2, 14, 15, -9\}$ (iv) $\{9, 7, 4, 1, 13, 8, 6, -7, -6, 17, -3, 11, 2, 14, 15\}$
 (v) $\{9, 7, 4, 1, 13, 8, -7, -6, 17, -3, 11, 2, 14, 15, -2\}$

27. Find C'



- (i) $\{11, 14, -6, -5, 16, 4, 10, -2, -1, 7, 1, -4, 13\}$ (ii) $\{11, 14, -6, -5, 16, 4, 2, 10, -2, -1, 7, 1, -4\}$
 (iii) $\{11, 14, -6, -5, 16, 4, 2, 10, -2, -1, 7, 1, -4, 5\}$ (iv) $\{11, 14, -6, -5, 16, 4, 2, 10, -2, -1, 7, 1, 5\}$
 (v) $\{11, 14, -6, -5, 16, 4, 2, -2, -1, 7, 1, -4\}$

28. Find $(A \cup B)'$



- (i) $\{12, 0, -7, 3, 8, 4, -9\}$ (ii) $\{12, 13, 0, -7, 8, 4, 7\}$ (iii) $\{13, 0, -7, 3, 8, 4\}$ (iv) $\{12, 13, 0, -7, 3, 8, 4, 7\}$
 (v) $\{12, 13, 0, -7, 3, 8, 4\}$

Assignment Key

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