



1. If $A = \{8, 7, 12, 5, 15, 4, 1, 3\}$, $B = \{11, 1, 13, 6, 8, 5, 4, 9\}$ and $C = \{7, 10, 1, 5, 0, 14, 6, 2\}$, then $A \cap (B \cap C) =$
(i) $\{5, 1, 19\}$ (ii) $\{5, 0, 1\}$ (iii) $\{1, 5, 12\}$ (iv) $\{11, 1, 5\}$ (v) $\{1, 5\}$
2. Which of the following is 'complement' symbol?
(i) \neq (ii) \leftrightarrow (iii) \subset (iv) \in (v) $'$
3. If $A = \{10, 9, 0, 6, 11, 4, 3\}$, $B = \{15, 2, 5, 10, 1, 7\}$ and $C = \{15, 13, 2, 0, 12, 11\}$, then $C \cap (A \cap B) =$
(i) $\{\}$ (ii) $\{17\}$ (iii) $\{3\}$ (iv) $\{7\}$ (v) $\{13\}$
4. Which of the following is not equal to set $A = \{7, 4, 8, 3, 2, 9, 6, 0\}$?
(i) $\{4, 8, 9, 6, 1, 7, 2, 3\}$ (ii) $\{6, 2, 0, 3, 7, 9, 8, 4\}$ (iii) $\{8, 0, 3, 6, 7, 9, 4, 2\}$ (iv) $\{6, 0, 9, 8, 7, 4, 2, 3\}$ (v) $\{3, 2, 4, 8, 7, 0, 9, 6\}$
5. If $A = \{7, 9, 8\}$ and $\mu = \{7, 9, 8, -6, 4\}$, find $A \cup \mu$
(i) $\{6, -6, 9, 8, -1\}$ (ii) $\{-6, 9, 7, 4, 8\}$ (iii) $\{7, 4, 9, 8\}$ (iv) $\{1, 9, -6, 7, 8, 4, 3\}$ (v) $\{4, 10, 7, -6, 9\}$
6. Which of the following is not a subset of $A = \{4, 9, 0, 8, 1, 5, 2, 7, 3\}$?
(i) $\{2, 0, 4, 3, 1, 8, 5, 7\}$ (ii) $\{0, 2, 6, 5, 1, 4, 3, 9\}$ (iii) $\{4, 9, 0, 8, 1, 5, 2, 7, 3\}$ (iv) $\{3, 5, 2, 7, 8, 9, 0\}$ (v) $\{2, 1, 8, 7, 3, 9, 5, 4\}$
7. Which of the following is 'superset or equal to' symbol?
(i) \cup (ii) \in (iii) \supseteq (iv) \subset (v) \leftrightarrow
8. If $A = \{u, y, e, z, c\}$, which of the following are true?
a) $A \supset e$
b) $e \notin A$
c) $\{c, e\} \subset A$
d) $e \subset A$
e) $e \in A$
(i) $\{b, e, c\}$ (ii) $\{a, c\}$ (iii) $\{d, a, c\}$ (iv) $\{c, e\}$ (v) $\{b, e\}$
9. Which of the following is a null set?
(i) $\{2, -1, -6, 7\}$ (ii) $\{-5, 1, 7, -3, 3\}$ (iii) $\{-6, 1, 2\}$ (iv) $\{\}$ (v) $\{3, -9\}$
10. If $A = \{6, 10, 1, 0\}$, $B = \{1, 5, 0\}$ and $C = \{1, 6, 8\}$, then $A \cup (B \cup C) =$
(i) $\{8, 6, 1, 5, 0\}$ (ii) $\{8, 0, 1, 6, 10\}$ (iii) $\{8, 1, 5, 10, 0, 6\}$ (iv) $\{\}$ (v) $\{5, 6, 16, 0, 8, 10, 1\}$
11. If $A = \{5, 4, 1\}$ and $B = \{1, 4, 0\}$, then $B \cup A =$
(i) $\{1, 5, 0\}$ (ii) $\{5, 4, 0, 1\}$ (iii) $\{4, 0, 5, 6, 1\}$ (iv) $\{1, 4, 5\}$ (v) $\{0, 8, 4, 5\}$
12. If $\mu = \{-8, 10, -2, -4, 7, -1, -9, 5, -5, -6, -3, 4, -7, 2, 8, 3, 0\}$, $A = \{-8, 10, -2, -4, 7, -1, -9\}$ and $B = \{5, -5, -6, 7, -3, 4, -7\}$, find $n(B)$
(i) 8 (ii) 4 (iii) 9 (iv) 7 (v) 6

13. If $\mu = \{-4, 8, -5, 3, -7, 6, 7, 9\}$, $A = \{-4, 8, -5\}$ and $B = \{8, -5, -4\}$, find $(A \cup B) - (A \cap B)$

- (i) $\{3\}$ (ii) $\{\}$ (iii) $\{7\}$

14. If $A = \{2, 7, 4, 8, 5\}$, which of the following are true?

- a) $\{8, 4\} \subset A$
b) $5 \subset A$
c) $A \supset 5$
d) $5 \in A$
e) $5 \notin A$

- (i) $\{a, d\}$ (ii) $\{b, a\}$ (iii) $\{e, b, a\}$ (iv) $\{c, d\}$ (v) $\{c, d, a\}$

15. What is the cardinality of an empty set?

- (i) 2 (ii) 3 (iii) 0 (iv) 5 (v) 6

16. If $A = \{15, 0, 9, 2, 13, 3\}$, $B = \{10, 1, 15, 8, 0, 5\}$ and $C = \{0, 4, 14, 8, 11, 6\}$, then $A \cap (B \cap C) =$

- (i) $\{0, 4\}$ (ii) $\{0, 20\}$ (iii) $\{13, 0\}$ (iv) $\{0, 10\}$ (v) $\{0\}$

17. If $A = \{0, 3, 10, 6\}$ and $B = \{2, 8, 7, 3\}$, then $B \cup A =$

- (i) $\{10, 8, 6, 2, 7, 0\}$ (ii) $\{10, 0, 13, 8, 2, 3, 6\}$ (iii) $\{8, 0, 2, 13, 7, 3, 10, 6\}$ (iv) $\{8, 2, 10, 3, 0, 6, 7\}$ (v) $\{2, 3, 0, 7, 10, 8\}$

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

- (i) $\{9, -5, 4, -2, -4\}$ (ii) $\{\}$ (iii) $\{-2, -4, 9, -3, -5, 4\}$ (iv) $\{-5, -4, 4, -2, -3\}$

19. If $\mu = \{4, 0, -9, -2, 6, 5, -1, -8, 7, 3, -5, 1, -7, -6, 8\}$, $A = \{4, 0, -9, -2, 6\}$ and $B = \{5, -1, -8, 7, 0, 3, -2\}$, find $(A - B) \cup (B - A)$

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

20. If $\mu = \{-5, -6, -3, 1, -7, 8, 5, -4, 3, -2, 2, 6\}$, $A = \{-5, -6, -3, 1, -7\}$ and $B = \{8, 5, -4, 3\}$, find $(A - B)'$

- (i) $\{3, -2, 6, 2, 8, -4, 5\}$ (ii) $\{8, -4, 3, 6, 2, -2\}$ (iii) $\{\}$

21. If A and B are disjoint sets, which of the following are true?

- a) $A \cap B = \emptyset$
b) $A \subset B$
c) $A \cup B = A$
d) $A \cap B = A$
e) $B \subset A$

- (i) $\{a\}$ (ii) $\{b, a\}$ (iii) $\{c, a\}$ (iv) $\{d, e, a\}$

22. If $\mu = \{-7, -8, 9, 1, -6, 3, 5, 6, -2, -4, -1, 0, 8\}$, $A = \{-7, -8, 9, 1\}$ and $B = \{-6, 3, 5, -7, 6, -2\}$, find $n(B - A)$

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

23. Which of the following elements does not belong to the set $\{m, z, x, b, u\}$

- (i) f (ii) u (iii) m (iv) b (v) x

24. If $\mu = \{-1, 4, -3, -6, 1, -8, -7, 3, -9, 2, 7\}$, $A = \{-1, 4, -3, -6\}$ and $B = \{-3, 1, -8, -7\}$, find $A - B$

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

25. Which of the following is 'superset' symbol?

(i) \subset (ii) \subseteq (iii) \notin (iv) \supset (v) \cap

Assignment Key

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