



1. Which of the following is 'does not belongs to' symbol?

- (i) \in (ii) \subseteq (iii) \cap (iv) \notin (v) \neq

2. If $A = \{-1,4,0,-3,3\}$ and $\mu = \{-1,4,0,-3,3,9,6,7\}$, find $A \cap \mu$

- (i) $\{4,0,-3,-1,3\}$ (ii) $\{5,4,-1,-3,0,2,3\}$ (iii) $\{-3,0,4,3\}$ (iv) $\{4,-1,-3,3,-2\}$ (v) $\{-3,3,4,-1,1\}$

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

- (i) 9 (ii) 12 (iii) 8 (iv) 6 (v) 10

4. Which of the following is a null set?

- (i) $\{0\}$ (ii) \emptyset (iii) $\{o\}$ (iv) $\{\text{empty}\}$ (v) $\{\emptyset\}$

5. Find the cardinality of $A = \{-6,-8,-4,4,-7,-9\}$

- (i) 8 (ii) 6 (iii) 5 (iv) 4 (v) 7

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

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

7. Which of the following are true?

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

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

8. Which of the following symbols represent the set of Integers ?

- (i) Q' (ii) Q (iii) Z (iv) N (v) W

9. Which of the following is an empty set?

- (i) $\{o\}$ (ii) $\{\text{empty}\}$ (iii) $\{\}$ (iv) $\{0\}$ (v) $\{\emptyset\}$

10. Which of the following are overlapping sets?

- (i) $\{12,3,6,8,11,2,18\}, \{17,4,9,1,19\}$ (ii) $\{12,3,8,11\}, \{17,4,9,1,19\}$ (iii) $\{12,3,8,11\}, \{17,4,9,1,19,6,2,18\}$
(iv) $\{12,3,6,8,11,2,18\}, \{\}$ (v) $\{12,3,6,8,11,2,18\}, \{17,4,9,1,19,6,2,18\}$

11. Which of the following are disjoint sets?

- (i) $\{14,16,1,8,12\}, \{14,16,1,8,12\}$ (ii) $\{\}, \{14,16,1,8,12\}$ (iii) $\{14,16,1,8,12\}, \{15,5,13,17,2\}$
(iv) $\{14,16,1,8,12\}, \{15,5,13,17,2,1\}$ (v) $\{14,16,1,8,12\}, \{\}$

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

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

13. If $A = \{9,5,10\}$ and $B = \{8,4,5\}$, then $B \cap A =$
(i) $\{5,8\}$ (ii) $\{11,5\}$ (iii) $\{5\}$ (iv) $\{8,5,9\}$ (v) $\{9,5\}$
14. If $A = \{8,10,1,4\}$ and $B = \{4,6,8,1\}$, then $B \cup A =$
(i) $\{10,4,15,6,8\}$ (ii) $\{10,8,14,1,4,6\}$ (iii) $\{10,4,8,1,6\}$ (iv) $\{1,6,8,4\}$ (v) $\{8,1,10,6\}$
15. If $A = \{-6,3,1,-8,-4\}$ and $\mu = \{-6,3,1,-8,-4,-3,6,-5\}$, find $A \cup \emptyset$
(i) $\{1,-6,0,4,-8,3,-4\}$ (ii) $\{2,-6,3,-8,-4\}$ (iii) $\{-4,3,-8,-6,1\}$ (iv) $\{-8,3,-10,-4,2\}$ (v) $\{-8,3,-4,1\}$
16. Which of the following elements does not belong to the set $\{10,7,5,8,3\}$?
(i) 1 (ii) 7 (iii) 3 (iv) 10 (v) 8
17. If $A = \{3,10,9,1,8\}$ and $B = \{4,8,5,7,1\}$, then $B \cap A =$
(i) $\{8,1\}$ (ii) $\{8,9,1\}$ (iii) $\{12,1,8\}$ (iv) $\{1,10,7,8\}$ (v) $\{1,8,4\}$
18. If $A = \{14,2,13,6,5,15,10\}$ and $B = \{2,1,9,8,14,12,13\}$, then $B \cap A =$
(i) $\{14,15,13,2\}$ (ii) $\{14,15,8,2,13\}$ (iii) $\{2,14,1,13\}$ (iv) $\{2,14,13\}$ (v) $\{20,2,13,14\}$
19. If $A = \{5,0,1\}$ and $B = \{0,3,4\}$, then $B \cup A =$
(i) $\{5,3,0,1,4\}$ (ii) $\{4,3,1,0,5,8\}$ (iii) $\{5,4,1,3\}$ (iv) $\{\}$ (v) $\{5,3,1,4,8\}$
20. If $A = \{0,6,8\}$ and $B = \{7,4,9\}$, then $A \cap B =$
(i) $\{0,9\}$ (ii) $\{\}$ (iii) $\{8\}$ (iv) $\{15\}$ (v) $\{9\}$
21. Which of the following elements belong to the set $\{1,3,8,2,6\}$?
(i) (-3) (ii) 12 (iii) (-4) (iv) 3 (v) 11
22. If $A = \{0,-7,8,-8,5,9,-6\}$ and $\mu = \{0,-7,8,-8,5,9,-6,-1,-9,-2,7\}$, find $A \cap \mu$
(i) $\{4,9,-7,-8,0,3,5,-6,8\}$ (ii) $\{7,-1,9,3,-7,0,-8\}$ (iii) $\{8,9,-7,5,0,-5,-8\}$ (iv) $\{-7,-6,9,-8,8,0\}$
(v) $\{0,-7,9,5,8,-8,-6\}$
23. Which of the following sets have same cardinality?
a) $\{-1,4,-8\}$
b) $\{-1,1,3,5,8\}$
c) $\{-1,3\}$
d) $\{-6,-8,-9\}$
e) $\{4,0,5,-8\}$
(i) $\{c,d\}$ (ii) $\{a,d\}$ (iii) $\{b,a\}$ (iv) $\{e,b,a\}$ (v) $\{c,d,a\}$
24. If $A = \{6,9,7,0,2\}$ and $B = \{1,9,0,3,7\}$, then $A \cap B =$
(i) $\{9,11,0,7\}$ (ii) $\{3,2,0,9,7\}$ (iii) $\{2,9,7,0\}$ (iv) $\{7,0,3,9\}$ (v) $\{7,9,0\}$
25. Which of the following is a null set?
(i) $\{7,-7,1,-9,6\}$ (ii) $\{2,-1,-8,-2\}$ (iii) $\{5,-5,3\}$ (iv) $\{\}$ (v) $\{0,7\}$

Assignment Key

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