



1. Which of the following is a singleton set?

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

2. Which of the following is a null set?

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

3. Which of the following is equal to set $A = \{5,7,-4,4\}$?

- (i) {5,7,4,-8} (ii) {1,-8,-7,-6} (iii) {4,-4,5,7} (iv) {-4,-9,-2,0,7} (v) {5,-8,1}

4. Which of the following is equivalent set of $A = \{3,-2\}$?

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

5. Which of the following is an infinite set?

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

6. If $A = \{4,10,7,2,8\}$, which of the following are true?

- a) $\{4,8\} \subset A$
b) $A \supset 10$
c) $10 \in A$
d) $10 \notin A$
e) $10 \subset A$

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

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

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

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

8. If $A = \{v,j,y,r,h\}$, which of the following are true?

- a) $\{r\} \subset A$
b) $A \supset y$
c) $y \notin A$
d) $y \in A$
e) $y \subset A$

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

9. Given sets A, B and C, where $A \subset B \subset C$, which of the following are true?

- a) $C \supset B$
- b) $B \supset A$
- c) $\emptyset \subset B$
- d) $B \subset A$
- e) $C \subset A$

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

10. Which of the following are true?

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

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

11. If $A \subset B$, then which of the following are true?

- a) $A' \subset B$
- b) $A = B$
- c) $A' = B$
- d) $B \supset A$
- e) $B \subset A$

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

12. If $A \subset B$, then which of the following are true?

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

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

13. If $A \subset B$, then which of the following are true?

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

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

Given 5 sets $A = \{7,2,10,5\}$, $B = \{2,10,7,5\}$, $C = \{7,1,4,8,6,9,10\}$,

14. $D = \{11,19,18,17,12,16,14\}$ and $E = \{8,2,5,4,7,6,10,1,3,9\}$,

which of the following are true?

- a) $A \subset C$
- b) $C \leftrightarrow D$
- c) $C = D$
- d) $A \leftrightarrow C$
- e) $A = B$

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

15. Which of the following are disjoint sets?

- (i) $\{9,11,6\}, \{15,4,13\}$ (ii) $\{\}, \{9,5,11,1,6\}$ (iii) $\{9,5,11,1,6\}, \{9,5,11,1,6\}$ (iv) $\{9,5,11,1,6\}, \{\}$
- (v) $\{9,5,11,1,6\}, \{15,5,4,1,13\}$

16. Which of the following are overlapping sets?

- (i) $\{2,4,7,14,18\}, \{15,3,17,5,6,16,10\}$ (ii) $\{2,4,7,14,18,5,16,10\}, \{15,3,17,5,6,16,10\}$
- (iii) $\{2,4,7,14,18\}, \{15,3,17,6\}$ (iv) $\{2,4,7,14,18,5,16,10\}, \{\}$ (v) $\{2,4,7,14,18,5,16,10\}, \{15,3,17,6\}$

17. Which of the following elements belong to the set $\{4,6,8,7,9\}$?

- (i) 7 (ii) 12 (iii) (-1) (iv) 11 (v) 0

18. Which of the following is 'intersection' symbol?

- (i) \supset (ii) \in (iii) \cap (iv) \supseteq (v) \subseteq

19. Which of the following is 'minus' symbol?

- (i) \subset (ii) \neq (iii) $-$ (iv) \notin (v) \subseteq

20. Which of the following is 'complement' symbol?

- (i) \in (ii) $'$ (iii) \cup (iv) \subset (v) \neq

21. Which of the following is 'subset' symbol?

- (i) \cup (ii) \supseteq (iii) \leftrightarrow (iv) \cap (v) \subset

22. Which of the following is 'subset or equal to' symbol?

- (i) \cup (ii) \neq (iii) \leftrightarrow (iv) \subseteq (v) \in

23. Which of the following is 'not a subset' symbol?

- (i) \subset (ii) \cup (iii) \subseteq (iv) \neq (v) \neq

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

- (i) \notin (ii) \subset (iii) \cup (iv) \supset (v) \leftrightarrow

25. Which of the following is 'superset or equal to' symbol?

- (i) \subset (ii) \supseteq (iii) \notin (iv) \cap (v) \neq

26. Which of the following is 'not a superset' symbol?

- (i) \notin (ii) \subseteq (iii) \cup (iv) \neq (v) \supset

27. Which of the following is 'equivalent set' symbol?

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

28. Which of the following is 'belongs to' symbol?

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

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

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

30. Which of the following is 'universal set' symbol?

(i) \subseteq (ii) \subset (iii) \notin (iv) μ (v) \leftrightarrow

31. Which of the following is 'null set' symbol?

(i) \supset (ii) \cap (iii) \emptyset (iv) \neq (v) \subseteq

32. Which of the following elements does not belong to the set {5,3,1,10,2}?

(i) 5 (ii) 10 (iii) 3 (iv) 1 (v) 4

33. Which of the following elements does not belong to the set {l,d,w,q,z}?

(i) w (ii) d (iii) q (iv) m (v) z

34. Which of the following is not equal to set A = {7,4,0,1,5,2,9}?

(i) {1,2,7,5,9,0,4} (ii) {7,9,0,2,1,3,4} (iii) {0,5,7,2,1,4,9} (iv) {1,0,9,7,5,4,2} (v) {2,9,1,4,5,0,7}

35. Which of the following is an empty set?

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

36. Which of the following is a null set?

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

37. Which of the following are null sets?

a) \emptyset

b) {}

c) {6,5,1}

d) {empty}

e) { \emptyset }

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

38. Which of the following sets are not equivalent to set {1,9,10,3,7}?

a) {2,3,6,7,4}

b) {9,1,4,5,2}

c) {1,9,6,7}

d) {2,8,9}

e) {8,3,9,10,1}

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

39. Which of the following are equivalent sets?

- a) {0,5,7}
- b) {0,-2}
- c) {9,-9,0,-3}
- d) {-8,5,-5,-1,-9}
- e) {9,-1,-9}

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

40. Which of the following sets have same cardinality?

- a) {1,-2,2,9,-1}
- b) {-8,-2,8,4,-1,-9}
- c) {7,8,-4,5,0,-1}
- d) {3,0,1,-4,-1,9,-6,-3}
- e) {-8,-4,5,-3,1,0,7}

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

41. Which of the following diagrams represent equivalent sets?

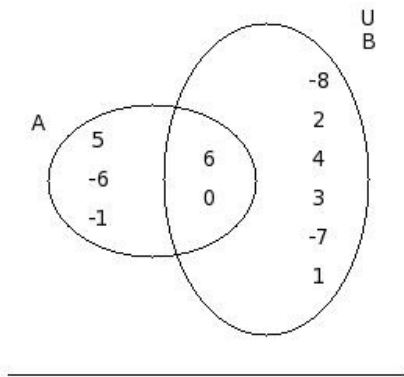


figure 1

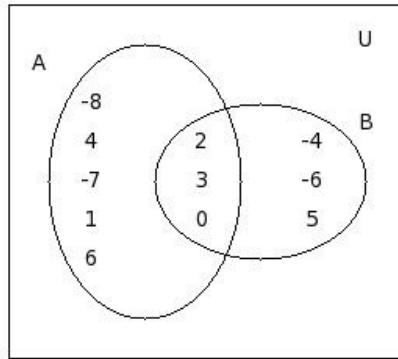


figure 2

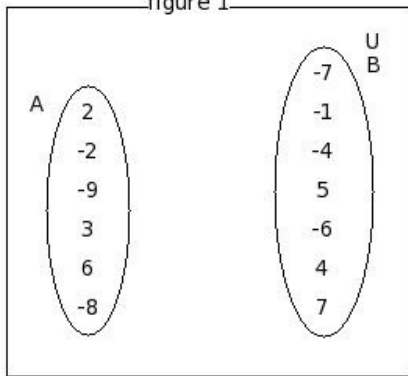


figure 3

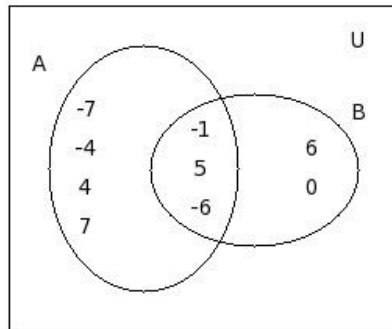


figure 4

(i) figure 1 (ii) figure 3 (iii) figure 2 (iv) None of the above (v) figure 4

42. What is the cardinality of an empty set?

- (i) 2 (ii) 0 (iii) 5 (iv) 7 (v) 3

43. Which of the following diagrams represent equal sets?

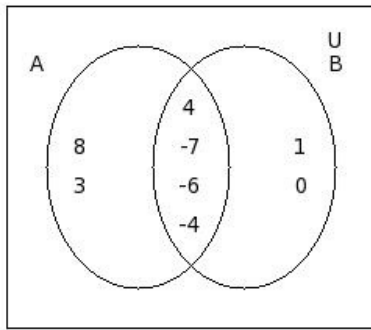


figure 1

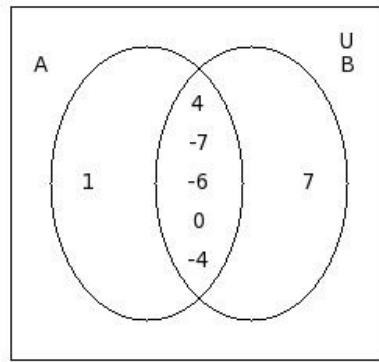


figure 2

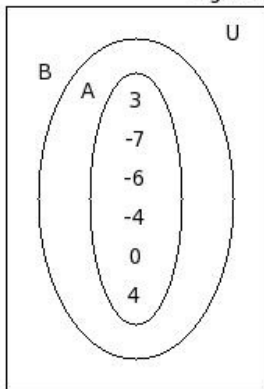


figure 3

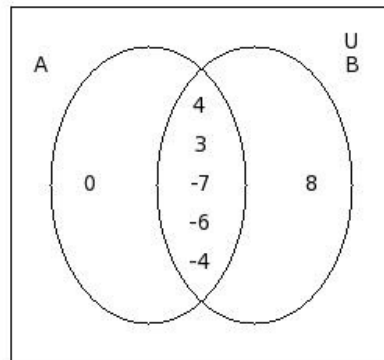


figure 4

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

44. Which of the following symbols represent the set of Natural numbers ?

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

45. Which of the following symbols represent the set of Whole numbers ?

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

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

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

47. Which of the following symbols represent the set of Rational numbers ?

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

48. Which of the following symbols represent the set of Irrational numbers ?

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

49. Which of the following symbols represent the set of Real numbers ?

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

50. Find the cardinality of $A = \{-6, 6, 5, 2, 3, 4, 0, -8\}$

- (i) 7 (ii) 5 (iii) 10 (iv) 8 (v) 9

51. If $A = \{9, -1, -3, -9, 1, -7, 3\}$, then $n(A) = ?$

- (i) 5 (ii) 6 (iii) 9 (iv) 7 (v) 8

52. Which of the following is 'union' symbol?

(i) \neq (ii) \notin (iii) \neq (iv) \cup (v) \subseteq

Assignment Key

1) (ii)	2) (v)	3) (iii)	4) (iii)	5) (v)	6) (ii)
7) (ii)	8) (iv)	9) (iii)	10) (v)	11) (iv)	12) (ii)
13) (ii)	14) (ii)	15) (i)	16) (ii)	17) (i)	18) (iii)
19) (iii)	20) (ii)	21) (v)	22) (iv)	23) (iv)	24) (iv)
25) (ii)	26) (iv)	27) (i)	28) (i)	29) (v)	30) (iv)
31) (iii)	32) (v)	33) (iv)	34) (ii)	35) (i)	36) (iv)
37) (ii)	38) (iii)	39) (iii)	40) (i)	41) (iv)	42) (ii)
43) (iv)	44) (i)	45) (i)	46) (v)	47) (iv)	48) (iii)
49) (iii)	50) (iv)	51) (iv)	52) (iv)		