

EduSahara™ Learning Center Assignment

Grade : Class VII, ICSE

Chapter : Sets

Name : Subsets

Licensed To : Teachers and Students for non-commercial use

1. Which of the following is a subset of $A = \{3,2,1\}$?

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

2. Which of the following is a subset of $A = \{2, 3, 1, 6, 7, 0\}$?

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

3. Which of the following is a subset of $A = \{13, 15, 12, 1, 6, 10, 14, 4, 5\}$?

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

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

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

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

5. If $A = \{v, t, e, w, d\}$, which of the following are true?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Given 5 sets $A = \{3,2,6,1\}$, $B = \{6,1,3,2\}$, $C = \{10,9,5,2,4,3,7\}$,

10. $D = \{14,15,13,12,18,16,11\}$ and $E = \{4,9,1,2,3,8,10,5,6,7\}$,
which of the following are true?

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

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

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

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

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

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

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

(i) \subseteq (ii) $\not\subset$ (iii) $\not\in$ (iv) \cup (v) \in

14. Which of the following is a subset of set $A = \{-8, 3, 1, 9, 7\}$?

(i) $\{7, 9, -8, 3, 1\}$ (ii) $\{7, 2, 9, 1, -8\}$ (iii) $\{\emptyset\}$ (iv) μ (v) $\{3, 9, -8, 1, 7, -7\}$

15. Which of the following is a subset of set $A = \{-9, -5, -4, -6, -7\}$?

(i) $\{\emptyset\}$ (ii) \emptyset (iii) $\{2, -4, -5, -7, -9\}$ (iv) $\{-5, 9, -4, -9, -6, -7\}$ (v) μ

16. Find the number of subsets of $A = \{2, 1, 3, 4, 5\}$

(i) 30 (ii) 32 (iii) 34 (iv) 31 (v) 33

17. Which of the following is a proper subset of $A = \{2, 3, 4\}$?

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

18. Find the number of proper subsets of $A = \{1\}$

(i) 0 (ii) (-1) (iii) 3 (iv) 2 (v) 1

19. Which of the following is not a subset of $A = \{3, 1, 7, 9, 8, 5, 6, 0\}$?

(i) $\{7, 9, 5, 6, 3, 8, 0\}$ (ii) $\{6, 7, 8, 3, 9, 0\}$ (iii) $\{3, 6, 7, 9, 2, 8, 5\}$
(iv) $\{3, 1, 7, 9, 8, 5, 6, 0\}$ (v) $\{5, 6, 0, 8, 7, 9, 1\}$

Assignment Key

- 1) (i)
- 2) (ii)
- 3) (iii)
- 4) (iv)
- 5) (i)
- 6) (i)
- 7) (ii)
- 8) (iv)
- 9) (ii)
- 10) (iv)
- 11) (iv)
- 12) (ii)
- 13) (iii)
- 14) (i)
- 15) (ii)
- 16) (ii)
- 17) (iv)
- 18) (v)
- 19) (iii)