

EduSahara™ Learning Center Assignment**Grade : Class VI, ICSE****Chapter : Sets****Name : Operations on Sets****Licensed To : Teachers and Students for non-commercial use**

1. If $A = \{4,3,5\}$ and $B = \{1,3,2\}$, then $A \cup B =$

- (i) $\{2,4,3,1,8,5\}$ (ii) $\{5,2,8,4,1\}$ (iii) $\{1,2,3,4\}$
(iv) $\{1,5,2,4,3\}$ (v) $\{4,3,5,1\}$
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2. If $A = \{2,6,8,5,10\}$ and $B = \{7,8,3,6,5\}$, then $A \cup B =$

- (i) $\{5,2,3,7,6,8\}$ (ii) $\{8,3,6,7,2,10,5,14\}$
(iii) $\{3,2,7,8,5,10\}$ (iv) $\{7,2,5,6,10,3,8\}$
(v) $\{7,5,2,6,3,14,10\}$
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3. If $A = \{12,9,4,3,6,1,5\}$ and $B = \{9,5,12,14,0,11,7\}$, then $A \cup B =$

- (i) $\{4,12,1,0,5,6,3,9,7,14,11\}$
(ii) $\{0,3,14,7,4,1,6,5,11,9\}$
(iii) $\{5,0,11,17,1,14,7,12,3,9,4,6\}$
(iv) $\{\}$
(v) $\{3,14,7,20,9,0,5,12,11,1,6\}$
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4. If $A = \{4,0,6\}$ and $B = \{4,10,0\}$, then $A \cap B =$

- (i) $\{4,0,10,6\}$ (ii) $\{0,10,4\}$ (iii) $\{0,11,4\}$ (iv) $\{0,4,6\}$ (v) $\{4,0\}$
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5. If $A = \{7,8,0,3,2\}$ and $B = \{0,8,7,6,3\}$, then $A \cap B =$

- (i) $\{3,0,7,8\}$ (ii) $\{15,8,7,3,0\}$ (iii) $\{8,0,7,6,3\}$
(iv) $\{3,2,7,8,0\}$ (v) $\{3,8,7,2,6,0\}$
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6. If $A = \{5,8,2,7,6,3,9\}$ and $B = \{11,7,13,9,12,4,3\}$, then $A \cap B =$

- (i) $\{19,9,7,3\}$ (ii) $\{9,7,3\}$ (iii) $\{11,9,3,7\}$ (iv) $\{9,3,5,7\}$ (v) $\{4,3,12,7,9\}$
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7. If $A = \{5,3,4,-3,-4,-5,-7\}$ and $\mu = \{5,3,4,-3,-4,-5,-7,9,1,8,-1\}$,
find $A \cup \mu$

- (i) $\{4,3,-3,-4,9,-5,-7\}$ (ii) $\{-5,3,-3,4,5,-7,-4\}$
 (iii) $\{4,-3,-7,-5,3,5\}$ (iv) $\{3,1,4,-7,0,-4,5,-5,-3\}$
 (v) $\{-5,-7,4,3,0,-4,5\}$
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8. If $A = \{-4,-1,-8\}$ and $\mu = \{-4,-1,-8,-5,7\}$,
 find $A \cup \emptyset$

- (i) $\{-4,-8,-1\}$ (ii) $\{-8,-1\}$ (iii) $\{-4,3,-13\}$ (iv) $\{-4,-7,-1\}$ (v) $\{-1,-4,1,-8,2\}$
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9. Which of the following are true?

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

- (i) $\{d,c,a\}$ (ii) $\{d,c\}$ (iii) $\{a,c\}$ (iv) $\{e,b,a\}$ (v) $\{b,a\}$
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10. For any two non-empty sets A and B, which of the following are true?

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

- (i) $\{e,b,a\}$ (ii) $\{a,d\}$ (iii) $\{c,d\}$ (iv) $\{c,d,a\}$ (v) $\{b,a\}$
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11. If $A = \{-4,9,1,3,0,5,-1\}$ and $\mu = \{-4,9,1,3,0,5,-1,-9,-7,4,2\}$,
 find $A \cup \mu$

- (i) $\{-4,5,-6,1,9,-1,2,0,3,-9,4\}$
 (ii) $\{\}$
 (iii) $\{0,-1,9,-7,4,-4,1,-9,3,2\}$
 (iv) $\{5,1,-7,-1,9,2,4,-4,0,3,-9\}$
 (v) $\{-9,1,-10,5,3,0,2,-2,4,-1,9\}$
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12. If $A = \{8,3,-9\}$ and $\mu = \{8,3,-9,-4,1\}$,
 find $A \cap A$

- (i) $\{-9,5,3,8,0\}$ (ii) $\{-9,3\}$ (iii) $\{3,-9,8\}$ (iv) $\{2,-2,-9\}$ (v) $\{10,-9,3\}$
-

13. If $A = \{6,5,-3,8\}$ and $\mu = \{6,5,-3,8,0,9,2\}$,
 find $A \cap \emptyset$

(i) {3} (ii) {-1} (iii) {} (iv) {1,5}

14. If $A = \{8, -8, -1, 2, 1, 3\}$ and $\mu = \{8, -8, -1, 2, 1, 3, -9, 6, -5, -7\}$,
find $A \cap \mu$

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

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

(i) 3 (ii) 5 (iii) 2 (iv) 7 (v) 4

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

(i) 5 (ii) 4 (iii) 6 (iv) 2 (v) 8

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

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

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

(i) 5 (ii) 4 (iii) 2 (iv) 1 (v) 3

Assignment Key

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