



1. If $A = \{1,5,0\}$ and $B = \{5,4,3\}$, then $A \cup B =$
(i) $\{5,1,0,3,4\}$ (ii) $\{6,1,4,0,5,3\}$ (iii) $\{1,0,3,4\}$ (iv) $\{5,3,0,8,1\}$ (v) $\{5,0,1,3\}$
2. If $A = \{10,4,9,5\}$ and $B = \{10,4,9,7\}$, then $A \cup B =$
(i) $\{10,13,5,9,4\}$ (ii) $\{4,7,5,10,9\}$ (iii) $\{10,14,7,9,4,5\}$ (iv) $\{9,10,4,7\}$ (v) $\{7,10,9,5\}$
3. If $A = \{14,2,6,0,15\}$ and $B = \{5,9,12,10,3\}$, then $A \cup B =$
(i) $\{12,5,6,9,0,10,15,3,14\}$ (ii) $\{0,9,14,2,3,15,5,12,6,10\}$ (iii) $\{18,9,10,6,5,0,12,3,2,15,14\}$
(iv) $\{0,5,6,10,14,12,15,2,9\}$ (v) $\{10,14,6,18,2,0,15,3,5,12\}$
4. If $A = \{1,3,6\}$ and $B = \{9,8,3\}$, then $A \cap B =$
(i) $\{3\}$ (ii) $\{9,3\}$ (iii) $\{3,1\}$ (iv) $\{11,3\}$ (v) $\{6,8,3\}$
5. If $A = \{1,10,5,8,6\}$ and $B = \{4,8,1,7,10\}$, then $A \cap B =$
(i) $\{8,1,4,10,5\}$ (ii) $\{11,10,8,1\}$ (iii) $\{7,1,10,8\}$ (iv) $\{1,10,8\}$ (v) $\{5,1,8,10\}$
6. If $A = \{9,10,5,11,8,1,7\}$ and $B = \{1,14,13,10,6,15,3\}$, then $A \cap B =$
(i) $\{10,1\}$ (ii) $\{9,1,10\}$ (iii) $\{20,1,10\}$ (iv) $\{10,15,1\}$ (v) $\{10,3,7,1\}$
7. If $A = \{-4,-6,5,8,7,2\}$ and $\mu = \{-4,-6,5,8,7,2,-8,-1,-2,1\}$, find $A \cup \mu$
(i) $\{-6,11,8,5,-4,2\}$ (ii) $\{5,2,7,8,3,4,-6,-4\}$ (iii) $\{-6,-4,8,2,7,5\}$ (iv) $\{5,-4,8,-7,3,2\}$ (v) $\{-4,2,5,7,-6\}$
8. If $A = \{-1,8,-3,4,-7,5,6\}$ and $\mu = \{-1,8,-3,4,-7,5,6,2,1,7,-9\}$, find $A \cup \mu$
(i) $\{5,8,-3,-7,4,-1\}$ (ii) $\{-7,-3,6,7,5,-2,0\}$ (iii) $\{1,4,5,-7,-1,2,6,8,-3\}$ (iv) $\{6,5,-3,4,8,-1,-7\}$
(v) $\{-1,2,4,8,6,-7,5\}$
9. Which of the following are true?
a) $A \cup \emptyset = \emptyset$
b) $A \cup A = A$
c) $A \cup \emptyset = A$
d) $A \cup A = \emptyset$
e) $A \cap \emptyset = A$

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

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

11. If $A = \{8,0,-1,-8,6,5\}$ and $\mu = \{8,0,-1,-8,6,5,-3,-2,-9,4\}$, find $A \cup \mu$
(i) $\{5,4,8,-3,-9,0,-8,6,-1,-2\}$ (ii) $\{-1,5,-9,4,6,8,-8,-3,0\}$ (iii) $\{6,8,-9,4,0,-4,-2,10,-1,-8\}$
(iv) $\{-2,6,-9,4,8,-8,1,5,0,-3,-1,3\}$ (v) $\{-8,0,4,5,-3,6,-2,12,-1,-9\}$
12. If $A = \{-9,8,4,-7,5,2\}$ and $\mu = \{-9,8,4,-7,5,2,1,-4,9,-1\}$, find $A \cap \mu$
(i) $\{2,4,-9,8,5\}$ (ii) $\{5,8,0,2,1,-7,4,-9\}$ (iii) $\{2,8,5,-7,-9,4\}$ (iv) $\{-9,-7,9,2,8,6\}$ (v) $\{-5,-7,4,2,5,8\}$
13. If $A = \{3,1,-4,0,-6\}$ and $\mu = \{3,1,-4,0,-6,-8,7,6\}$, find $A \cap \emptyset$
(i) $\{\}$ (ii) $\{1\}$ (iii) $\{0,3\}$ (iv) $\{5\}$
14. If $A = \{-6,-7,1,8,0,9\}$ and $\mu = \{-6,-7,1,8,0,9,2,6,-2,4\}$, find $A \cap \mu$
(i) $\{-1,-6,-7,8,2,0,9,1\}$ (ii) $\{9,8,0,-6,4,-7\}$ (iii) $\{-7,9,1,-11,-1,7\}$ (iv) $\{8,-7,1,0,9\}$ (v) $\{1,8,-6,-7,0,9\}$
15. If $\mu = \{5,-2,4,-7,8,-8,7,9\}$, $A = \{5,-2,4\}$ and $B = \{-7,8,-2\}$, find $n(A)$
(i) 2 (ii) 4 (iii) 3 (iv) 6 (v) 0
16. If $\mu = \{-9,-3,9,7,-1,8,3,-5,1,-8,2,-6,6\}$, $A = \{-9,-3,9,7,-1\}$ and $B = \{8,7,3,-9,-5\}$, find $n(B)$
(i) 4 (ii) 2 (iii) 5 (iv) 6 (v) 7
17. If $\mu = \{-8,-2,5,-7,6,4,0,-4,-5,8,1,-3,3\}$, $A = \{-8,-2,5,-7\}$ and $B = \{6,-8,4,0,-4,-5\}$, find $n(A \cup B)$
(i) 6 (ii) 8 (iii) 10 (iv) 9 (v) 12
18. If $\mu = \{-7,-8,-4,-5,5,8,-1,1,-6,3,0\}$, $A = \{-7,-8,-4\}$ and $B = \{-5,5,8,-1,1,-4\}$, find $n(A \cap B)$
(i) (-2) (ii) 2 (iii) 1 (iv) 0 (v) 4

Assignment Key

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