

Name: \_\_\_\_\_

## Sets

**Exercise 1:** Let A and B be two sets, in each case find  $A \cap B$ ,  $A \cup B$ ,  $\bar{A}$  and  $\bar{B}$

- 1)  $A = \{1, 2, 4, 5\}$  and  $B = \{a, b, c, 3, 5, 6\}$
- 2)  $A = \{0, 1, a, b, c\}$  and  $B = \{0, 1, a, f, g, h\}$
- 3)  $A = \{1, 2, 3, 4, 5, 6\}$  and  $B = \{a, b, c, d\}$
- 4)  $A = \{e, f, d, r, t\}$  and  $B = \{1, 2, 3, e, 4\}$
- 5)  $A = \{m, n, b, v, r, d\}$  and  $B = \{m, 2, 3, n\}$
- 6)  $A = \{1, 2, 3, 4\}$  and  $B = \{1, 2\}$

**Exercise 2:** Let  $A = \{0, 3, 6, 9\}$ ,  $B = \{1, 4, 7, 9, 10\}$ ,  $C = \{2, 3, 5, 8, 11\}$ , find:

- 1)  $(A \cap B) \cup C$
- 2)  $(A \cap C) \cup B$
- 3)  $(A \cap B) \cup (A \cap C)$
- 4)  $(A \cup B) \cap (A \cup C)$
- 5)  $(A \cup B) \cap C$