

1. State **True** or **False**

- a.  $\{m,a,n\} = \{n, a, m\}$  \_\_\_\_\_
- b.  $\{1,2,3,4\} \subseteq \{3,2,1\}$  \_\_\_\_\_
- c.  $A \subseteq B$  if and only if every member of  $A$  is also a member of  $B$   
\_\_\_\_\_
- d. If  $A$  is a proper subset of  $B$ , then  $A \neq B$  \_\_\_\_\_

2. If  $U = \{1,2,3,4,5,6\}$ ,  $A = \{2,3,6\}$ ,  $B = \{2,4,6\}$ ,  $C = \{3,6\}$

- a.  $A \cap B =$  \_\_\_\_\_
- b.  $(A \cup B) \cap C =$  \_\_\_\_\_
- c.  $(A' \cap B') =$  \_\_\_\_\_
- d.  $(A \cup B) \cap (A \cup C) =$  \_\_\_\_\_
- e. The number of subsets of  $U =$  \_\_\_\_\_