

## Open Resource Quiz

Topics in Contemporary Mathematics (MATH 110) Date: September 6, 2013

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

---

1. Let  $X = \{a, b, e, g\}$ . Fill in the blank with subset or element notation.

a \_\_\_\_\_ X

$\{a, g\}$  \_\_\_\_\_ X

f \_\_\_\_\_ X

2. Write the given set B using the listing method.

$B = \{x \mid x \text{ is a counting number less than } 2\}$

3. Circle T(true) or F(false), when  $A = \{1, 3, 5\}$ .

a.  $\{\emptyset\} \subseteq A$                       T                      F

b.  $\{\{1\}\} \subseteq A$                       T                      F

4. Let's consider the sets  $\mathcal{U} = \{8, 9, 10, 11, 12, 13, 15\}$ ,  $A = \{8, 9, 10, 11, 12\}$  and  $B = \{8, 9, 10, 13\}$ . Find the following:

a.  $A \cap B$

b.  $A \cup B$

c.  $\mathcal{U} - A$

d.  $A' \cap B$