

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

1. Suppose  $A = \{0, 2, 4, 6, 8\}$  and  $B = \{4, 5, 6, 7, 8\}$  have universal set  $U = \{0, 1, 2, 3, 4, 5, 6, 7, 8\}$ . Find:

(a)  $A - B =$

(b)  $A \cap B =$

(c)  $\overline{B} =$

(d)  $B \cap \overline{B} =$

(e)  $A \cup B =$

(f)  $\overline{A \cup B} =$

2. Suppose  $A_1 = \{a, b, c, d, e\}$ ,  $A_2 = \{d, e, f\}$  and  $A_3 = \{e, f, g, h\}$ .

(a)  $\bigcup_{i=1}^3 A_i =$

(b)  $\bigcap_{i=1}^3 A_i =$

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(a)  $\overline{A} =$

(b)  $B - A =$

(c)  $B - \overline{A} =$

(d)  $A \cup \overline{A} =$

(e)  $A \cap \overline{A} =$

(f)  $\overline{A \cap \overline{A}} =$

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- (a)  $\bar{A} =$
- (b)  $\bar{B} =$
- (c)  $B \cap \bar{A} =$
- (d)  $B \cup \bar{A} =$
- (e)  $A - \bar{A} =$
- (f)  $\overline{A \cup B} =$

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