- 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:
 - $A B = \left\{ 0, 2 \right\}$
 - $A \cap B = \{A, 6, 8\}$
 - (c) $\overline{B} = \{0, 1, 2, 3\}$

 - (d) $B \cap \overline{B} = \emptyset$ (e) $A \cup B = \{0, 2, 4, 5, 6, 7, 8\}$
 - $\overline{A \cup B} = \{1, 3\}$ (f)
- 2. Suppose $A_1 = \{a, b, c, d, e\}$, $A_2 = \{d, e, f\}$ and $A_3 = \{e, f, g, h\}$.
 - (a) $\bigcup A_i = \{a, b, c, d, e, f, g, h\}$
 - (b) $\bigcap_{i=1}^{n} A_i = \left\{ e \right\}$

Name:

Quiz 3 \diamondsuit

MATH 211

January 26, 2023

- 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:
 - $\overline{A} = \{1, 3, 5, 7\}$
 - $B-A = \{5, 7\}$
 - (c) $B \overline{A} = \{4, 6, 8\}$
 - (d) $A \cup \overline{A} = \mathcal{U} = \{0, 1, 2, 3, 4, 5, 6, 7, 8\}$
 - (e) $A \cap \overline{A} = \emptyset$
 - $\overline{A \cap \overline{A}} = \overline{\phi} = \mathcal{U} = \{0, 1, 2, 3, 4, 5, 6, 7, 8\}$
- 2. Suppose $A_1 = \{a, b, c, d, e\}$, $A_2 = \{d, e, f\}$ and $A_3 = \{e, f, g, h\}$.
 - (a) $\bigcup_{i=1}^{n} A_i = \{a, b, c, d, e, f, g, h\}$
 - (b) $\bigcap A_i = \{e\}$

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

(a)
$$\overline{A} = \{0,1,2,3\}$$

(b)
$$\overline{B} = \{1, 3, 5, 7\}$$

(c)
$$B \cap \overline{A} = \{0, 2\}$$

(d)
$$B \cup \overline{A} = \{ v, 1, 2, 3, 4, 6, 8 \}$$

(e)
$$A - \overline{A} = A = \{4, 5, 6, 7, 8\}$$

(e)
$$A - \overline{A} = A = \{4, 5, 6, 7, 8\}$$

(f) $A \cup B = \{9, 2, 4, 5, 6, 7, 8\} = \{5, 1, 3\}$

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

(a)
$$\bigcup_{i=1}^{3} A_{i} = \{ a, b, c, d, e, f, g, h \}$$

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

Richard Name:

Quiz 3 🛇

January 26, 2023

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

(a)
$$A - B = \{ 5, 7 \}$$

(b)
$$\overline{A} = \{0, 1, 2, 3\}$$

(c)
$$\overline{B} = \{1, 3, 5, 7\}$$

(d)
$$\overline{A} \cap \overline{B} = \{ 1, 3 \}$$

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

(f)
$$A \cup B = \{0, 2, 4, 5, 6, 7, 8\}$$

(g)
$$\overline{A \cup B} = \{1, 3\}$$

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

(a)
$$\bigcup_{i=1}^{3} A_{i} = \{a, b, c, d, e, f, g, h\}$$

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