

Complement of a set

Let $U = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$

$$A = \{0, 1, 2, 3, 5, 8\}$$

$$B = \{0, 2, 4, 6\}$$

$$C = \{1, 3, 5, 7\}$$

1. A'

2. B'

3. C'

4. $A \cap B'$

5. $B \cup C'$

6. $A' \cup C$

7. $(A' \cap C) \cup B$

8. $(A \cup B)'$

Answers

1. $A' = \{4, 6, 7, 9, 10\}$
2. $B' = \{1, 3, 5, 7, 8, 9, 10\}$
3. $C' = \{0, 2, 4, 6, 8, 9, 10\}$
4. $A \cap B' = \{1, 3, 5, 8\}$
5. $B \cup C' = \{0, 2, 4, 6, 8, 9, 10\}$
6. $A' \cup C = \{1, 3, 4, 5, 6, 7, 9, 10\}$
7. $(A' \cap C) \cup B = \{0, 2, 4, 6, 7\}$
8. $(A \cup B)' = \{7, 9, 10\}$