

Exercise 44

Sets Find the indicated set if

$$A = \{1, 2, 3, 4, 5, 6, 7\} \quad B = \{2, 4, 6, 8\} \quad C = \{7, 8, 9, 10\}$$

(a) $A \cup B \cup C$

(b) $A \cap B \cap C$

Solution

The union of A and B and C ($A \cup B \cup C$) is the combination of elements in all, whereas the intersection of A and B and C ($A \cap B \cap C$) is only the elements they have in common.

$$A \cup B \cup C = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$$

$$A \cap B \cap C = \{\} = \emptyset$$