

Section 2.1 Check Points

1. Write a word description.

$$L = \{a, b, c, d, e, f\}$$

2. Set M is the set of months beginning with the letter A. Express this set using the roster method.

3. Express the following set in roster method.

$$O = \{x \mid x \text{ is a positive odd number less than } 10\}$$

4. Which of the following is the empty set?

a) $\{x \mid x \text{ is a number less than } 3 \text{ or greater than } 5\}$

b) $\{x \mid x \text{ is a number less than } 3 \text{ and greater than } 5\}$

5. Determine whether each statement is true or false.

a) $8 \in \{1, 2, 3, \dots, 10\}$

b) $r \notin \{a, b, c, z\}$

c) $\{\text{Monday}\} \in \{x \mid x \text{ is a day of the week}\}$

6. Express each of the following using roster method

a) Set A is the set of natural numbers less than or equal to 3.

b) Set B is the set of natural numbers greater than 14.

c) $O = \{x \mid x \in \mathbb{N} \text{ and } x \text{ is odd}\}$

7. Express each of the following sets using roster method

a) $\{x \mid x \in \mathbb{N} \text{ and } x < 200\}$

b) $\{x \mid x \in \mathbb{N} \text{ and } 50 < x \leq 200\}$