

Exercise 11

For the following exercises, solve the equations below and express the answer using set notation.

$$|6 - x| = 5$$

Solution

Remove the absolute value sign by placing \pm (read as “plus or minus”) on the right side.

$$|6 - x| = 5$$

$$6 - x = \pm 5$$

$$6 - x = 5 \quad \text{or} \quad 6 - x = -5$$

$$x = 1 \quad \text{or} \quad x = 11$$

Therefore, $x = \{1, 11\}$.