

**Exercise 20**

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

$$|3x - 2| = 7$$

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**Solution**

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

$$3x - 2 = \pm 7$$

$$3x - 2 = 7 \quad \text{or} \quad 3x - 2 = -7$$

$$3x = 9 \quad \text{or} \quad 3x = -5$$

$$x = 3 \quad \text{or} \quad x = -\frac{5}{3}$$

Therefore,

$$x = \left\{ -\frac{5}{3}, 3 \right\}.$$