Name: _

Score:

Solve the Absolute Value Equation

T1ES2

Solve each equation. In case of no solution, write \emptyset (null set).

1)
$$|2x| = 4$$

2)
$$|x| = 16$$

3)
$$|x| = -3$$

Solution =

4)
$$|-x| = -9$$

5)
$$-\frac{|x|}{3} = -1$$

6)
$$|x| = 7$$

Solution =

7)
$$|x| = 11$$

PREVIEW

Solution =

10)
$$|-x| = 2$$

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Solution =

13)
$$|x| = -7$$

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= 12

Solution =

16)
$$-|x| = -3$$

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Solution =

19)
$$|x| = 15$$

20)
$$-|x| = 4$$

21)
$$|3x| = -5$$

Solution =

22)
$$-|x| = -19$$

23)
$$|-x| = 6$$

24)
$$|x| = 1$$

Answer key

Score:

Solve the Absolute Value Equation

T1ES2

1)
$$|2x| = 4$$

2)
$$|x| = 16$$

3)
$$|x| = -3$$

Solution =
$$\{-2, 2\}$$

Solution =
$$\{-16, 16\}$$

4)
$$|-x| = -9$$

$$5) \quad -\frac{|x|}{3} = -1$$

6)
$$|x| = 7$$

Solution = \emptyset

7)
$$|x| = 11$$

PREVIEW

Solution = $\{-11,$

10)
$$|-x| = 2$$

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Solution = $\{-2, 2\}$

13)
$$|x| = -7$$

Solution = Ø

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$$= \{-\frac{1}{2}, \frac{1}{2}\}$$

 $= \{-12, 12\}$ |= 6

$$= 6$$

Solution = $\{-3, 3\}$

16) -|x| = -3

19)
$$|x| = 15$$

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Solution =
$$\{-15, 15\}$$

22)
$$-|x| = -19$$

23)
$$|-x| = 6$$

24)
$$|x| = 1$$

Solution =
$$\{-19, 19\}$$

Solution =
$$\{-6, 6\}$$

Solution =
$$\{-1, 1\}$$