

Name: \_\_\_\_\_

Score: \_\_\_\_\_

### Solve the Absolute Value Equation

T5MS2

Solve each equation.

1) $ x - 2  =  4x - 3 $	2) $\left \frac{x}{3} + 2\right  = \left 2x + \frac{1}{4}\right $	3) $ -3 + x  =  1 - x $
Solution =	Solution =	Solution =
4) $\left 3x + \frac{1}{2}\right  =  2x - 1 $	5) $ x - 4  =  x + 2 $	6) $ x - 1  = \frac{1}{2} x - 3 $
Solution =	Solution =	Solution =
7) $ 4x - 1  =  3x + 2 $	8) $ x - 3  =  4 + x $	9) $ x - 2  =  3x - 1 $
Solution =	Solution =	Solution =
10) $\left \frac{x}{2} - 1\right  =  x - 3 $	11) $ x - 4  =  x + 2 $	12) $ x - 1  = \frac{3x+1}{4}$
Solution =	Solution =	Solution =
13) $\left \frac{3x-2}{4}\right  =  4 - x $	14) $ x - 3  =  x + 2 $	15) $ x - 1  = \frac{3x+1}{4}$
Solution =	Solution =	Solution =
16) $ 5x - 1  =  3x + 1 $	17) $2\left \frac{x}{3} + 2\right  = 6 x - 3 $	18) $ 7x + 1  = \left \frac{x+5}{3}\right $
Solution =	Solution =	Solution =

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Answer key

Score: \_\_\_\_\_

## Solve the Absolute Value Equation

T5MS2

1)  $|x - 2| = |4x - 3|$

Solution =  $\left\{\frac{1}{3}, 1\right\}$

2)  $\left|\frac{x}{3} + 2\right| = \left|2x + \frac{1}{4}\right|$

Solution =  $\left\{\frac{21}{20}, -\frac{27}{28}\right\}$

3)  $|-3 + x| = |1 - x|$

Solution =  $\{2\}$

4)  $\left|3x + \frac{1}{2}\right| = \left|2x + \frac{1}{2}\right|$

Solution =  $\{0, -$

7)  $|4x - 1| = |3$

Solution =  $\{-1,$

10)  $\left|\frac{x}{2} - 1\right| = |x$

Solution =  $\left\{\frac{16}{3}, 1\right\}$

13)  $\left|\frac{3x-2}{4}\right| = |4 -$

Solution =  $\left\{-14, \frac{18}{7}\right\}$

16)  $|5x - 1| = |3x + 1|$

Solution =  $\{0, 1\}$

5)  $|-4x + 2| = |x + 9|$

Solution =  $\{-18, -\frac{6}{5}\}$

3)  $| = |4 + x|$

Solution =  $\left\{-\frac{1}{2}\right\}$

- 2)  $= |3x - 1|$

Solution =  $\left\{\frac{1}{6}, \frac{1}{4}\right\}$

|  $= \left|\frac{3x+1}{4}\right|$

Solution =  $\left\{\frac{1}{2}\right\}$

17)  $2\left|\frac{x}{3} + 2\right| = 6|x - 3|$

Solution =  $\left\{\frac{21}{10}, \frac{33}{8}\right\}$

Solution =  $\left\{\frac{1}{13}, \frac{3}{7}\right\}$

18)  $|7x + 1| = \left|\frac{x+5}{3}\right|$

Solution =  $\left\{-\frac{4}{11}, \frac{1}{10}\right\}$

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