Solve the Absolute Value Equation

T4MS2

Solve each equation.

1) $3|x - 2| + 5 = 7$

Solution =

2) $4|-x + 3| - 5 = -1$

Solution =

3) $2\left|\frac{x}{3} + 1\right| + \frac{5}{2} = 2$

Solution =

4) $5 - \left|\frac{x}{2} + 3\right| =$

Solution =

$\left| + \frac{1}{4} = 2\right.$

=

7) $\frac{1}{3|4x - 1|} + \frac{1}{3} =$

Solution =

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

=

10) $3|2x - 1| -$

Solution =

$- 2x| + 4 = 8$

=

13) $6 - \frac{|3 - x|}{2} = -$

Solution =

Solution =

$\left|\frac{x}{8} + 3\right| = 2$

Solution =

16) $2|x - 3| + 5 = 13$

Solution =

17) $7|-x - 2| + 3 = 5$

Solution =

18) $5 - \left|\frac{x}{2} - 1\right| = -3$

Solution =

Solve the Absolute Value Equation

T4MS2

1) $3\|x-2\|+5=7$ Solution = $\left\{\dfrac{4}{3},\ \dfrac{8}{3}\right\}$	2) $4\|-x+3\|-5=-1$ Solution = $\{2,\ 4\}$	3) $2\left\|\dfrac{x}{3}+1\right\|+\dfrac{5}{2}=2$ Solution = $\left\{-\dfrac{15}{4},\ -\dfrac{9}{4}\right\}$
4) $5-\left\|\dfrac{x}{2}+3\right\|=-1$ Solution = $\{-18,$	5) $3+\dfrac{\|x-3\|}{4}=8$	6) $\left\|x+\dfrac{1}{2}\right\|+\dfrac{1}{4}=2$ $=\left\{-\dfrac{9}{4},\ \dfrac{5}{4}\right\}$
7) $\dfrac{1}{3\|4x-1\|}+\dfrac{1}{3}=$ Solution = $\left\{-\dfrac{1}{5},\right.$		$3\left\|\dfrac{x}{2}\right\|=4$ $=\{-4,\ 4\}$
10) $3\|2x-1\|-$ Solution = $\left\{-\dfrac{11}{6},\right.$		$-2x\|+4=8$ $=\left\{\dfrac{3}{14},\ \dfrac{11}{14}\right\}$
13) $6-\dfrac{\|3-x\|}{2}=-$ Solution = $\{-15,\ 21\}$	Solution = $\{-18,\ 8\}$	$\left\|\dfrac{x}{8}+3\right\|=2$ Solution = $\{-24\}$
16) $2\|x-3\|+5=13$ Solution = $\{-1,\ 7\}$	17) $7\|-x-2\|+3=5$ Solution = $\left\{-\dfrac{16}{7},\ -\dfrac{12}{7}\right\}$	18) $5-\left\|\dfrac{x}{2}-1\right\|=-3$ Solution = $\{-14,\ 18\}$

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