Solve the Absolute Value Equation

Solve each equation.

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

Name: _____   **Score:**

Answers:

1) $\mid x - 2 \mid = 5$ Solution = $\{ -3,\ 7 \}$	2) $\left\lvert \dfrac{x}{3} + 2 \right\rvert = 6$ Solution = $\{ -24,\ 12 \}$	3) $\left\lvert \dfrac{x-2}{5} \right\rvert = \dfrac{3}{2}$ Solution = $\left\{ -\dfrac{11}{2},\ \dfrac{19}{2} \right\}$
4) $\mid 5 - x \mid = 4$ Solution = $\{ 1,\ 9 \}$	5) $\left\lvert \dfrac{-x+6}{2} \right\rvert = \dfrac{3}{4}$ Solution = $\left\{ \dfrac{9}{2},\ \dfrac{15}{2} \right\}$	6) $\mid x + 7 \mid = 15$ Solution = $\{ -22,\ 8 \}$
7) $\mid 2x - 4 \mid = 8$ Solution = $\{ -2,\ 6 \}$	8) $\mid 6 - x \mid = 4$ Solution = $\{ 2,\ 10 \}$	9) $\left\lvert -\dfrac{x}{3} + 2 \right\rvert = 5$ Solution = $\{ -9,\ 21 \}$
10) $\left\lvert -x - \dfrac{2}{3} \right\rvert = \dfrac{9}{2}$ Solution = $\left\{ -\dfrac{31}{6},\ \dfrac{23}{6} \right\}$	11) $\left\lvert \dfrac{-3+x}{4} \right\rvert = 1$ Solution = $\{ -1,\ 7 \}$	12) $\mid x + 2 \mid = \dfrac{5}{4}$ Solution = $\left\{ -\dfrac{13}{4},\ -\dfrac{3}{4} \right\}$
13) $\mid 4 - x \mid = 2$ Solution = $\{ 2,\ 6 \}$	14) $\mid -x + 7 \mid = 5$ Solution = $\{ 2,\ 12 \}$	15) $\left\lvert 1 - \dfrac{3x}{2} \right\rvert = 4$ Solution = $\left\{ \dfrac{10}{3},\ -2 \right\}$
16) $\mid 5 - x \mid = \dfrac{1}{2}$ Solution = $\left\{ \dfrac{9}{2},\ \dfrac{11}{2} \right\}$	17) $\left\lvert x + \dfrac{2}{5} \right\rvert = 6$ Solution = $\left\{ -\dfrac{32}{5},\ \dfrac{28}{5} \right\}$	18) $\mid 4x + 2 \mid = 3$ Solution = $\left\{ -\dfrac{5}{4}, \dfrac{1}{4} \right\}$