

## [07-09-09A-T10-Problems]

### *Absolute value equations*

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$$[1] \quad |3(x-1) + 6| = 20$$

$$[2] \quad |2x - 7| = |-12|$$

$$[3] \quad |x + 8| = |x - 8|$$

$$[4] \quad |x - 8| = |8 - x|$$

$$[5] \quad \left|x + \frac{1}{2}\right| = |x + 3|$$

$$[6] \quad |5||x - 2| = |x + 4|$$

$$[7] \quad |-5||x - 2| = |x + 4|$$

$$[8] \quad |-3||8x - 11| = -3$$

$$[9] \quad |(3x - 5) - 7| = -|3|$$

$$[10] \quad -|3||7 - y| = -|2y|$$

**[07-09-09A-T10-Answers]***Absolute value equations*

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[1]  $\left\{x \rightarrow -\frac{23}{3}, x \rightarrow \frac{17}{3}\right\}$

[2]  $\left\{x \rightarrow -\frac{5}{2}, x \rightarrow \frac{19}{2}\right\}$

[3]  $\{x \rightarrow 0\}$

[4]  $\emptyset$

[5]  $\left\{x \rightarrow -\frac{7}{4}\right\}$

[6]  $\left\{x \rightarrow 1, x \rightarrow \frac{7}{2}\right\}$

[7]  $\left\{x \rightarrow 1, x \rightarrow \frac{7}{2}\right\}$

[8]  $\emptyset$

[9]  $\emptyset$

[10]  $\left\{y \rightarrow \frac{21}{5}, y \rightarrow 21\right\}$