Warm Up

Copy and solve:

$|7| =$ $|-5.2| =$

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

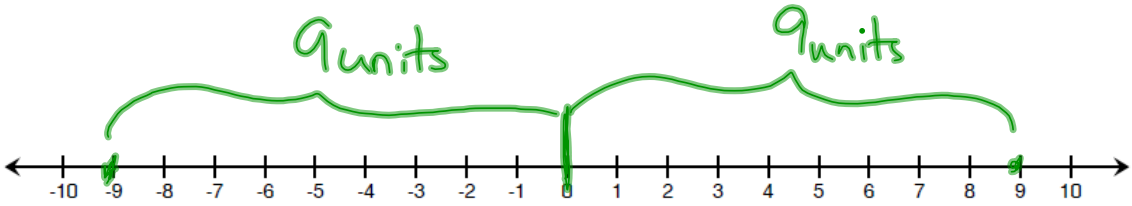
Absolute Value Equations

absolute value -

absolute value equation -

$$|x| = 9$$

$x = 9$ or $x = -9$



$$2|s| + 4.1 = 18.9$$

$$-4.1 \qquad -4.1$$

$$\frac{2|s|}{2} = \frac{14.8}{2}$$

$$|s| = 7.4$$

$s = 7.4$ or -7.4

$s = \pm 7.4$

$|3| = 3$ $|-3| = 3$

$$|x+4| = 3$$

$x+4 = 3$ or $x+4 = -3$

$-4 \quad -4 \qquad -4 \quad -4$

$x = -1$ or $x = -7$

Check

$|-1+4| = 3$ $|-7+4| = 3$

$|3| = 3$ ✓ $|-3| = 3$ ✓

$$4|t^{-3}+9| - 5 = 19$$

$+5 \quad +5$

$\frac{4|t+9|}{4} = \frac{24}{4}$

$|t+9| = 6$

$t+9 = 6$ OR $t+9 = -6$

$t = -3$ OR $t = -15$

$$2|m-5|+4=2$$

$-4 \quad -4$

$$\frac{2|m-5|}{2}=\frac{-2}{2}$$

$$|m-5|=-1$$

An absolute value can never be negative

no Real Solutions

$$|3x+5|+6=-2$$

$-6 \quad -6$

$$|3x+5|=-8$$

abs value can not be negative

$\boxed{\text{no solution}}$

Homework
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