Example 1 $|9a| = 45$

$$\frac{9a}{9} = \frac{45}{9} \qquad \frac{9a}{9} = \frac{-45}{9}$$

$$\boxed{a = 5} \qquad \boxed{a = -5}$$

Example 2 $4 + 2\left|\frac{x}{7}\right| = 6$

$-4 \qquad -4$

$$2\left|\frac{x}{7}\right| = 2$$

$$\frac{2\left|\frac{x}{7}\right|}{2} = \frac{2}{2}$$

$$\left|\frac{x}{7}\right| = 1$$

$$7\left(\frac{x}{7}\right) = (1)7 \qquad 7\left(\frac{x}{7}\right) = (-1)7$$

$$\boxed{x = 7} \qquad \boxed{x = -7}$$

Example 3 $|4x - 3| \leq 3$

$-3 \leq 4x - 3 \leq 3$

$+3 \qquad +3 \qquad +3$

$$\frac{0}{4} \leq \frac{4x}{4} \leq \frac{6}{4}$$

$$0 \leq x \leq \frac{3}{2}$$

* Less than symbol

"and" "between"

Example 4

$$|x-5|+2 > 11$$
$$-2 \quad -2$$
$$|x-5| > 9$$

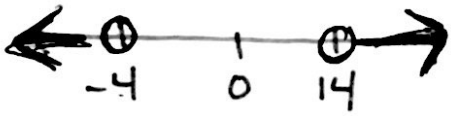
★ Greater than symbol "or"

$x-5 > 9$ OR $x-5 < -9$

$+5 \quad +5$ $+5 \quad +5$

$x > 14$ $x < -4$

$0 > 14$ False $0 < -4$ False

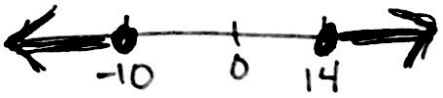


Example 5

$$5 + |2v-4| \geq 29$$
$$-5 \qquad -5$$
$$|2v-4| \geq 24$$

$2v-4 \geq 24$ OR $2v-4 \leq -24$

$v \geq 14$ $v \leq -10$



Try One

$$-9|m+1|-6 < 93$$
$$+6 \quad +6$$
$$\frac{-9|m+1|}{-9} < \frac{99}{-9}$$

$|m+1| > -11$

$m+1 > -11$ OR $m+1 < 11$

$m > -12$ $m < 10$