

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Learning Goal 6.2**

I can solve inequalities.

Whether solving an equation or an inequality, the steps are the same

Presentation of the solution will be different.

**Example** Solve the following.

**Equations**

$$h + 3 = 5$$

$$6.2 = x - 4.5$$

$$2a - 5 = 2 + 3a$$

**Inequalities**

$$h + 3 < 5$$

$$6.2 \leq x - 4.5$$

$$2a - 5 \geq 2 + 3a$$

Things get a little tricky when we move into multiplication and division.

$12 > 6$		$12 > 6$	
$12 \times (-3)$	$6 \times (-3)$	$12 \div (-3)$	$6 \div (-3)$
$12 \times (-2)$	$6 \times (-2)$	$12 \div (-2)$	$6 \div (-2)$
$12 \times (-1)$	$6 \times (-1)$	$12 \div (-1)$	$6 \div (-1)$
$12 \times (1)$	$6 \times (1)$	$12 \div (1)$	$6 \div (1)$
$12 \times (2)$	$6 \times (2)$	$12 \div (2)$	$6 \div (2)$
$12 \times (3)$	$6 \times (3)$	$12 \div (3)$	$6 \div (3)$

**Example** Solve each inequality. Graph the solution.

a.  $-5s \leq 25$

b.  $7a < -21$

c.  $\frac{y}{-4} > -3$

d.  $\frac{k}{3} \geq -2$

e.  $-2.6a + 14.6 > -5.2 + 1.8a$