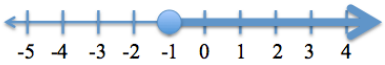
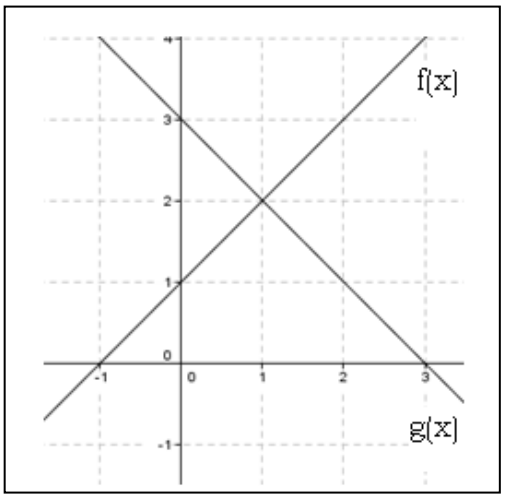
Linear 8 – Linear Inequalities
8.1 – Warmup: Inequalities

Name _____
Per _____ Date _____

Fill in the blanks based on the given information in each row:

Symbolic Notation	**Verbal Description**	**Set Notation**	**Line Graph**	**Possible Solutions (Circle all true)**
$x > 3$				9 -2 $\frac{1}{2}$ 6 $-\frac{8}{3}$ 0 12 -3
	all values x less than or equal to 2.			9 -2 $\frac{1}{2}$ 6 $-\frac{8}{3}$ 0 12 -3
		$\{ x : x < \frac{2}{3} \}$		9 -2 $\frac{1}{2}$ 6 $-\frac{8}{3}$ 0 12 -3
				9 -2 $\frac{1}{2}$ 6 $-\frac{8}{3}$ 0 12 -3
	all values x strictly greater than 2 and less than or equal to than 6.			9 -2 $\frac{1}{2}$ 6 $-\frac{8}{3}$ 0 12 -3
$x \leq -4$				9 -2 $\frac{1}{2}$ 6 $-\frac{8}{3}$ 0 12 -3

Use the following graphs of linear functions to answer the accompanying questions.



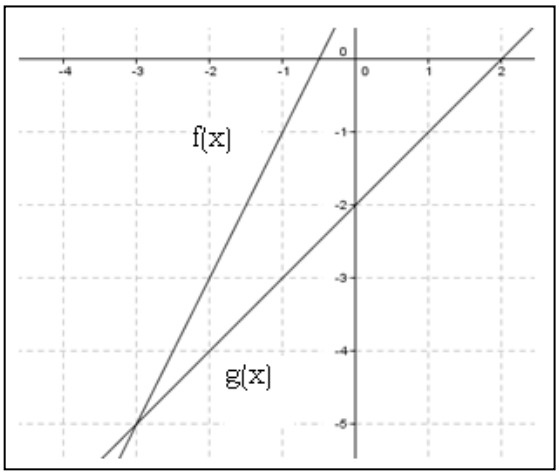
1.

a) At $x = 2$, which is greater, f or g? _____

b) For which values of x is $f(x) > g(x)$? Use set notation.

_____

c) Given b), what is a possible value for x? _____



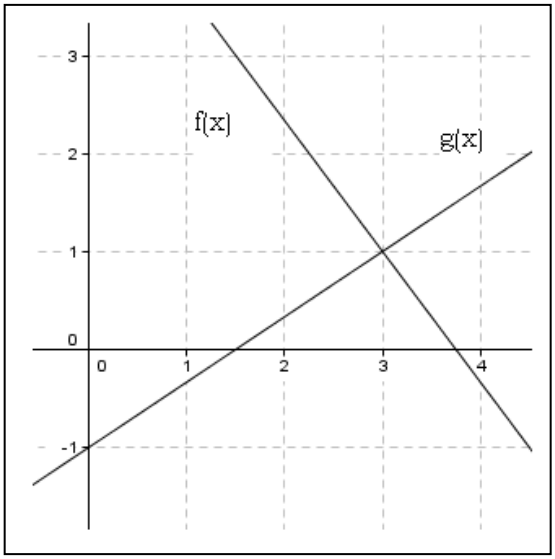
2.

a) Is $f(-4) < g(-4)$? _____

b) Solve for x such that $f(x) \leq g(x)$? Use set notation.

_____

c) Given b), what is a possible value for x? _____



3.

a) At $x = 1$, is f or g greater? _____

b) For which values of x is $f(x) \geq g(x)$? Use set notation.

_____

c) Given b), what is a possible value for x? _____