

Chapter 6, Practice Quiz 2

Lessons 6.4 and 6.5

Name: _____

Date: _____ Hour: _____

Skills Assessed:

I can solve absolute value equations and inequalities.

I can graph a linear inequality in two variables and model a real-life situation with them.

1) Solve the following equation. Show your work.

$$|20 - 5x| = 5$$

1) _____

2) Solve the following inequality. Show your work.

$$|x - 8| \geq 14$$

2) _____

3) Solve the following inequality and graph the solution.
Show your work.

$$\left|18 + \frac{1}{2}x\right| \geq 10$$

3) _____

Graph: _____

4) Your car averages 25 miles per gallon in the city. The actual mileage varies from the average by at most 5 miles per gallon.

a) Write an absolute-value inequality that shows the range for the mileage your car gets.

a) _____

b) Solve the inequality. Show your work.

b) _____

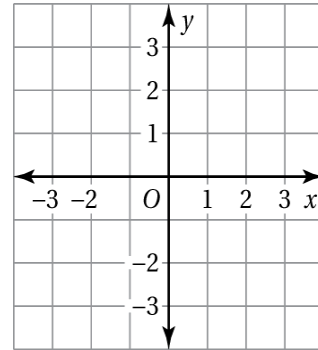
- 5) Is the ordered pair a solution to the given inequality?
Show your work.

$$6x + 4y \geq 4; (1, -1)$$

5) _____

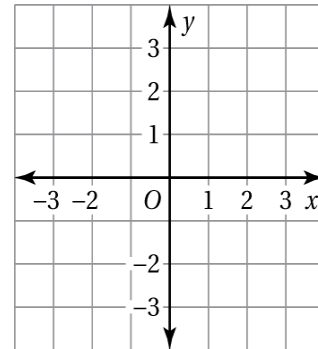
- 6) Sketch the graph of the given inequality on the coordinate plane.
Show your work.

$$-4y > 8$$



- 7) Sketch the graph of the given inequality on the coordinate plane.
Show your work.

$$-2x + 4y \leq 12$$



- 8) You have \$18 to spend at the concession stand on pop and popcorn. Each pop costs \$1.50 and popcorn is \$1.20. Let x represent the number of pops you can buy and let y represent the number of popcorns you can buy. Write an inequality that describes the different number of pops and popcorns you can buy and then graph it.

