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BLM 9–4

Section 9.2 Extra Practice

1. List 3 values that would make each inequality or combination of inequalities true.

a) $x \leq -4$

_____

b) $x > -3$

_____

c) $x > -4$ and $x < 3$

_____

d) $x \geq -2$ and $x \leq 5$

_____

2. Solve each inequality.

a) $x + 5 \leq 12$

b) $2 > x - 9$

c) $7.4 + x \geq 6.2$

d) $x - 4.2 < 3.5$

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e) $4x \leq -16$

When multiplying or dividing by a negative, reverse the inequality sign.

f) $-1.3x > 16.9$

g) $\frac{x}{5} \leq -4$

h) $-\frac{1}{4}x \geq 3$

3. Verify if the specified solution is correct for each inequality.

Check the solution.

a) $2x < -10$; $x > -5$

Check $x > -5$. Let $x =$ _____

2 × _____ < −10

_____ < −10

True or False.

Is $x > -5$ the solution?

Circle YES or NO.

b) $-3x \leq -24$; $x \leq 8$

Check x = 8

Left Side	**Right Side**

Check $x < 8$. Let $x = 6$.

−3 × _____ ≤ −24

_____ ≤ −24

True or False.

Is $x \leq 8$ the solution? Circle YES or NO.

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c) $-9 \geq -\frac{1}{3}x$; $x \leq 3$

d) $x + 8 < -12$; $x < 20$

e) $2x \geq -16$; $x \geq -8$

f) $-7 + x > -2$; $x > -9$

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(continued)

4. A balloon company guarantees that at least 18 of the balloons in each package are red. Fifteen percent of the balloons are red. How many balloons are in a package?

a) Write an inequality to model the situation.

Let n = the number of balloons in a package

Inequality: _____

b) Solve and verify the inequality.

Check the solution.

c) Represent your answer verbally and graphically.

Verbally: _____

Graphically:

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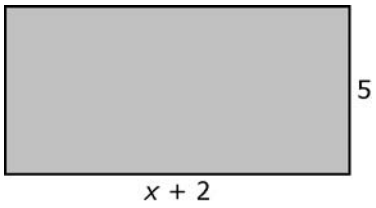
(continued)

5. a) Write an inequality to find the values of x that give the rectangle an area of no more than 25 square units.



_____

b) Solve the inequality.

c) Are there values of x that would not be possible for the length of the rectangle? Circle YES or NO. Give 1 reason for your answer.

_____

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