Name _____ Date _____ Class _____

LESSON 3-1

Problem Solving

Graphing and Writing Inequalities

Write the correct answer.

1. A citizen must be at least 35 years old in order to run for the Presidency of the United States. Choose a variable and write an inequality for this situation.
Solution:
Let a be a person's age.
$a \geq 35$

2. A certain elevator can hold no more than 2,500 pounds. Choose a variable and write an inequality for this situation.

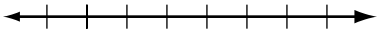
Let $w =$ _____.

$w \leq$ _____

3. Approximately 30% of the land on Earth is forest. This percent is decreasing. Write and graph an inequality for this situation.

_____

_____



4. Khalil weighed 125 pounds before he gained weight to play football. Write and graph an inequality for this situation.

_____

_____

When visitors enter an amusement park, they receive a list of rules. Select the best answer.

5. You must be at least 50 inches tall to ride the roller coaster. Which of the following inequalities fits this situation?

A $h \leq 50$

B $h \geq 50$

C $h > 50$

6. Children less than 12 years old must ride the roller coaster with an adult. Which of the following inequalities shows the ages of children who must ride with an adult?

F $y \leq 12$

G $y < 12$

H $y \geq 12$

7. An area of the park is set aside for children who are 6 years old or younger. Which of the following inequalities represents the ages of children who can go in this area?

A $a \leq 6$

B $a < 6$

C $a \geq 6$

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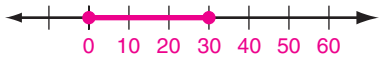
2. A certain elevator can hold no more than 2,500 pounds. Choose a variable and write an inequality for this situation.

Let $w =$ weight.

$w \leq$ 2,500

3. Approximately 30% of the land on Earth is forest. This percent is decreasing. Write and graph an inequality for this situation.

$f =$ percent forested; $f \leq 30$



4. Khalil weighed 125 pounds before he gained weight to play football. Write and graph an inequality for this situation.

$w =$ weight; $w \geq 125$

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