

Solving Linear Inequalities

Name:

Date:

Vocabulary Review:

In your own words, define each of the following vocabulary terms.

- Ordered Pair
- Standard Form
- Slope-Intercept Form
- Coordinate Plane
- Boundary Line
- Inequalities

Apply New Learning:

1. Explain how you would graph the inequality $y < 4x + 3$. Would you use a dashed or solid line? Would you shade above or below the line? Explain.

A restaurant owner is purchasing new small tables, x , and large tables, y . Small tables seat 3 people each, and large tables seat 6 people each. The restaurant can seat a maximum of 60 people. The restaurant owner uses the inequality $60 > 3x + 6y$ to figure out how many of each type of table to purchase.

2. Solve the inequality for y and write the equation in slope-intercept form. Use a graphing calculator to graph the boundary line. Sketch the graph in the space below.

3. Which of the following combinations of small tables, x , and large tables, y , could be used in the restaurant?

Restaurant Tables				
Small Tables (x)	2	3	6	5
Large Tables (y)	10	8	7	8