

Name: _____

Planning a Skate Party

Suppose your class is planning a skating party to celebrate the end of the school year. Your committee is in charge of finding a place to rent in-line skates for a reasonable price. You get quotes from two companies:

Roll-Away Skates charges \$5 per person

Wheelie's Skates and Stuff charges \$20 plus \$4 per person

Which company would you choose if you want to keep the cost to a minimum? Explain how you made your choice.



Do Now:

A child walks at the speed of 300 feet per minute. If the child walks for 7 minutes, how far has the child walked?

Solve the question by making a table comparing the time to the distance walked and then graph your result. Lastly, make a linear equation that could represent this question.

Follow-up Activities and Questions:

1. Graph the equations for both companies
2.
 - a. On which graph is the point (8,40)? What does this point mean in terms of the cost to rent skates?
 - b. On which graph is the point (8,60)? What does this point mean in terms of the cost to rent skates?
 - c. Find the point of intersection of the two graphs. What does this point mean in terms of the cost to rent skates?
3. If you write a linear equation in the form $y=mx+b$, the y-intercept (0,b).
 - a. Find the y-intercepts for the equations you graphed in question 1
 - b. What do the y-intercepts mean in terms of the cost to rent skates?
4. What are the coefficients of x in the equations in question 1? What do these coefficients mean in terms of the cost to rent skates? What effect do the coefficients have on the graph?
5. Which company would you choose if 100 students are planning to attend the party? Why?
6. If your budget for skate rental is \$250, how many pairs of skates can you rent from each company?