Name:

Date:

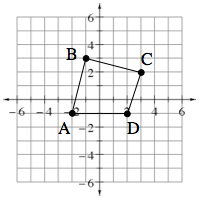
Lesson 7.2.5 Homework

* **7-81.** Aja and Emilie were riding their skateboards.  They knew that they could ride 3 miles in 20 minutes.
  1. How far can the girls ride in 45 minutes?
  2. If  y  represents the distance in miles and  x represents the time in minutes, write an equation to represent the distance traveled for any time.

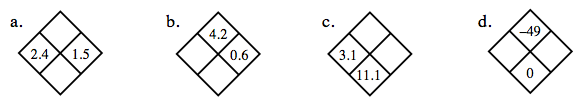
**7-82.**Joe is downloading songs from the Internet.  He can download them at a rate of 8 songs every 10 minutes.

Jasmine, who is also downloading songs, can download at a rate of 12 songs every 15 minutes.  Who is downloading songs faster?

**7-83.** Reflect quadrilateral ABCD across the line y = −2.  Write the new coordinate points.



**7-84.**Copy and complete each of the Diamond Problems below.  The pattern used in the Diamond Problems is shown at right.



**7-85.** On graph paper, graph the line that goes through the points (–6, 3) and (–3, –1).

* 1. What is the slope of the line?
  2. What is the y‑intercept?
  3. Find the equation of the line.

**7-86.** Mr. Crow, the head groundskeeper at High Tech Middle School, mows the lawn along the side of the gym.  The lawn is rectangular, and the length is 5 feet more than twice the width.  The perimeter of the lawn is 250 feet.

* 1. Define a variable and write an equation for this problem.
  2. Solve the equation that you wrote in part (a) and find the dimensions of the lawn.
  3. Use the dimensions you calculated in part (a) to find the area of the lawn.