NAME DATE PERIOD

Unit 5, Lesson 6
Practice Problems

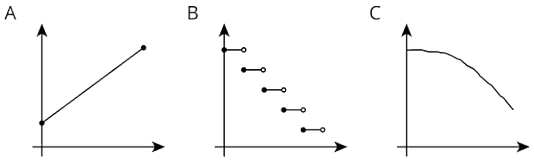
1. Match the graph to the following situations (you can use a graph multiple times). For each match, name possible independent and dependent variables and how you would label the axes.

   a. Tyler pours the same amount of milk from a bottle every morning.

   b. A plant grows the same amount every week.

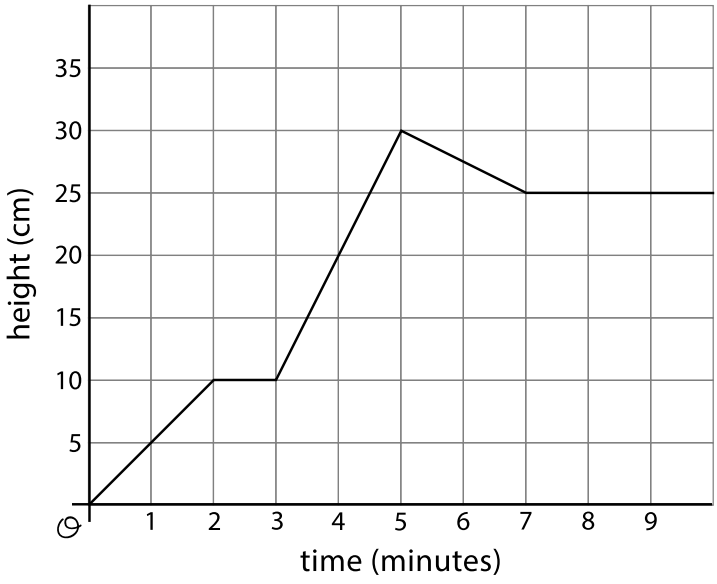
   c. The day started very warm but then it got colder.

   d. A carnival has an entry fee of $5 and tickets for rides cost $1 each.



2. Jada fills her aquarium with water.

   The graph shows the height of the water, in cm, in the aquarium as a function of time in minutes. Invent a story of how Jada fills the aquarium that fits the graph.



3. Recall the formula for area of a circle.

NAME DATE PERIOD

a. Write an equation relating a circle's radius, r, and area, A.

b. Is area a function of the radius? Is radius a function of the area?

c. Fill in the missing parts of the table.

r	3		$\frac{1}{2}$	
A		16π		100π

4. The points with coordinates $(4, 8)$, $(2, 10)$, and $(5, 7)$ all lie on the line $2x + 2y = 24$.

a. Create a graph, plot the points, and sketch the line.

b. What is the slope of the line you graphed?

c. What does this slope tell you about the relationship between lengths and widths of rectangles with perimeter 24?