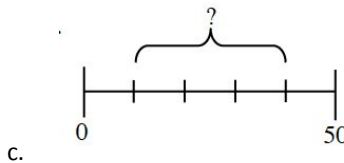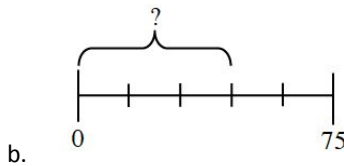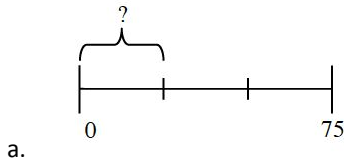Lesson 4.3.1 Homework

4-75. Using the picture of the tiles to the right, answer parts (a) and (b) below.
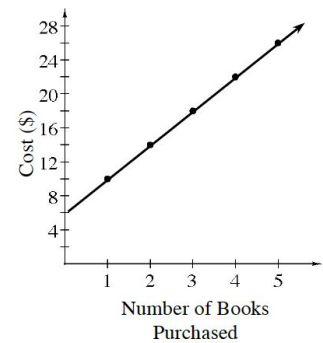
    a.   Find the area and perimeter of the shape.

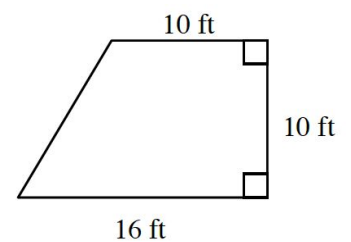   b.   If the algebra tiles were rearranged into a different shape, how would the area change?

4-76. What is the length of the marked portion of each line segment? Assume that the entire line segment is subdivided into equal sections.

a.

b.

c.

4-77. Is the relationship shown in the graph at right proportional? If so, use it to complete a Proportions Web. If not, explain why it is not.

4-78. Dante is ordering wood flooring for his bedroom, which is shaped like a trapezoid (shown at below). If the flooring materials cost $5 per square foot, how much should he expect to pay for the materials?

4-79. Sammy is training for a running race. Today he ran $3\frac{3}{5}$ miles in 33 minutes. What is his pace in miles per hour?

4-80. Daisy and Alexandra each have a group of algebra tiles on their desks as described below.
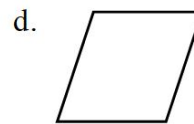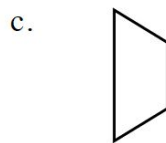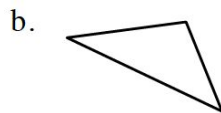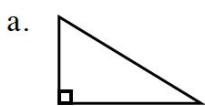Daisy has these tiles: x, x, x^2, 1, x^2, x, x^2, and x.
Alexandra has x^2, x, 1, 1, 1, x, x^2, x, and 1.
   a.   Sketch each girl's tiles.

   b.   If the girls put their tiles together, how many of each type of tile will they have? Write an expression that represents this sum.
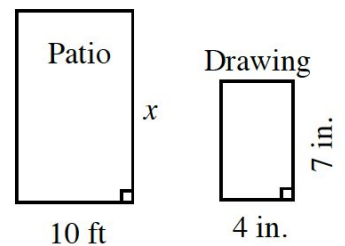
4-82. For each shape drawn below, choose one of the names on the list above them that best describes that shape. Be as specific as you can. If you do not remember what one of the shape names means, you may look in the glossary of this book for more information.

right triangle	scalene triangle	obtuse triangle
equilateral triangle	parallelogram	rectangle
rhombus	trapezoid	acute triangle

a.   b.   c.   d.

4-84. Daniel needed to paint his patio, so he made a scale drawing of it. He knows the width of the patio is 10 feet, but the scale drawing is in inches.
   a.   Find the length of the patio in feet.

Patio — x, 10 ft

Drawing — 7 in., 4 in.

   b.   Find the area of the patio so Daniel knows how much paint to buy.

   c.   One can of paint covers 125 square feet. How many cans of paint will Daniel need to buy?