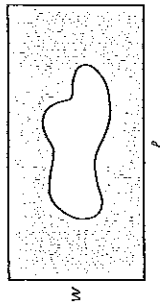


Additional Practice

Investigation 1

Say It With Symbols

The rectangle below has length ℓ and width w .



1. Write two equations for the perimeter p of the rectangle.
2. Suppose the length of the rectangle is equal to twice the width, or $2w$.
 - a. If the width of the rectangle is 1.5, what is the length?
 - b. If the width is 2, what is the perimeter?
 - c. Write two equations for the perimeter of the rectangle p in terms of only the width w .
3. Suppose $\ell = 14$ meters and $w = 6.5$ meters, and the area of the blob is 38 square meters. What is the area of the shaded region inside the rectangle? Show how you found your answer.
4. Write an equation for the area A of the shaded region inside the rectangle if the area of the blob is Q square meters.

For Exercises 5–8, write two expressions that are equivalent to the given expression.

5. $7(x - 4)$
6. $x(5 - 6) + 13x - 10$
7. $2.5(8 - 2x) + 5(x + 1)$
8. $3(x + 10) - 3(2 - 4x)$

Additional Practice (continued)

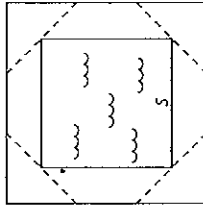
Investigation 1

Say It With Symbols

Use the distributive and commutative properties to determine whether the following statements are equal for all values of x .

- a. $3(x + 1) + x$ and $4x + 1$
- b. $6x$ and $(12x - 4x) - 2x$
- c. $6x$ and $12x - (4x - 2x)$
- d. $7x + 5x + 1$ and $12x + 1$

Dave made the following sketch, which includes four right isosceles triangles and four trapezoids for the number of tiles around the pool in Problem 1.1.



- a. Write an equation relating the number of tiles N to the length of the side s that Dave might have used to represent his sketch and his thinking about the Tiling Pools problem.
- b. Check to see if your equation is equivalent to those found in Problem 1.1.