

**A-30.** Copy and simplify the following expressions by combining like terms. Using or drawing sketches of algebra tiles may be helpful.

* 1. 2*x* + 3*x* + 3 + 4*x*2 + 10 + *x* b. 4*x* + 4*y*2 + *y*2 + 9 + 10 + *x* + 3*x*
	2. 2*x*2 + 30 + 3*x*2 + 4*x*2 + 14 + *x* c*.* 20 + 5*xy* + 4*y*2 + 10 + *y*2 + *xy*

**A-31.** Plot the points *A*(5, 3), *B*(−4, 3), *C*(−4, −6), and *D*(5, −6) on a set of axes. Use a ruler to connect them in order, including *D* back to *A*, to form a **quadrilateral** (a shape with four sides).

1. What kind of quadrilateral was formed?
2. How long is each side of the quadrilateral?
3. What is the area of the quadrilateral?
4. What is the perimeter of the quadrilateral?

**A-32.** Write an equation to solve the following problem.  Write your answer with a complete sentence.

Susan is buying three different colors of tiles for her kitchen floor.  She is buying 107 red tiles, and three times as many navy-blue tiles as beige tiles.  If Susan buys 435 tiles altogether, how many tiles of each color does she buy?

Let *b* = the number of beige tiles.  Your equation should start with “435 =” and use *b*as the only variable.

**A-44.**Read the Math Notes box for this lesson.  Then evaluate each equation below.

1. For *y* = 2 + 3*x* when *x* = 4, what does *y* equal?
2. For *a* = 4 – 5*c* when , what does *a*equal?
3. For *n* = 3*d*2 – 1 when *d* = –5 , what does *n* equal?

**A-45.** Write and simplify the algebraic expression shown in each expression mat below.



 a. b. c.