2-109. Draw a right triangle with legs of length 6 and 8 units, respectively, onto graph paper. Construct a square on the hypotenuse and use the square's area to find the length of the hypotenuse.

2-112. Hannah's shape bucket contains an equilateral triangle, an isosceles right triangle, a regular hexagon, an isosceles trapezoid, a rhombus, a kite, a parallelogram and a rectangle. If she reaches in and selects a shape at random, what is the probability that that the shape will meet the criterion described below?

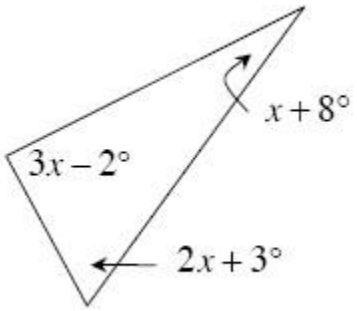
a. At least two sides congruent.
b. Two pairs of parallel sides.
c. At least one pair of parallel sides.

- **2-119.** Lines p and q graphed in problem 2-118 form a triangle with the x -axis.

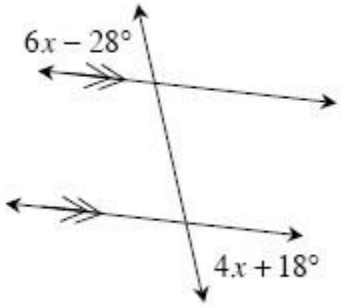
  a. How can you describe this triangle? In other words, what is the most appropriate name for this triangle? How do you know?
  b. Find the area of the triangle.
  c. What is the perimeter?

- **2-121.** Use the relationships in the diagrams below to solve for *x*, if possible. If it is not possible, state how you know. If it is possible, **justify** your solution by stating which geometric relationships you use.

a.



b.



c.