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**8-30.** Remember that a square is a rectangle with four equal sides.

* 1. If a square has an area of 81 square units, how long is each side?
  2. Find the length of the side of a square with area 225 square units.
  3. Find the length of the side of a square with area 10 square units.
  4. Find the area of a square with side 11 units.

**8-31.** Factor the following quadratic expressions, if possible.

* 1. *k*2 − 12*k* + 20 b. 6*x*2 + 17*x* – 14

c*. x*2 − 8*x* + 16 d. 9*m*2 – 1

b. Parts (a) through (c) are trinomials while part (d) is a binomial, yet they are all quadratics.  What makes each of them a quadratic?

**8-33.** Solve each equation below for *x*. Check each solution.

* 1. 2*x* − 10 = 0 b. *x* + 6 = 0

c. (2*x* − 10)(*x* + 6) = 0 d. 4*x* + 1 = 0

e. *x* − 8 = 0 f. (4*x* + 1)(*x* − 8) = 0