



5.13

Using Factoring to Solve Problems

Chapter 5

Solve.

1. The sum of a number and its square is 132. Find the number.
2. The sum of the squares of two consecutive positive odd integers is 202. Find the numbers.

3. A rectangle is 8 cm longer than it is wide. The area is 240 cm^2 . Find the dimensions.
4. The sum of two numbers is 12 and the sum of their squares is 74. Find the numbers.

5. A rectangular flower garden is planted in a rectangular yard that is 16 m by 12 m. The garden occupies $\frac{1}{6}$ of the area of the yard and leaves a uniform strip of grass around the edges. Find the dimensions of the garden.
6. The edge of one cube is 4 cm longer than the edge of a second cube. The volumes of the cubes differ by 316 cm^3 . Find the length of the edge of each cube.