Section 6.4 Special Products

# Objective 1: Squaring Binomials

Squaring a binomial can be visualized geometrically as the area of a square with side length where and are both positive, real numbers.



This leads to two identities that can be used to square a binomial.

Write the expression as a polynomial in standard form.

|  |  |
| --- | --- |
| a.  | b.  |
| c.  |  |

# Objective 2: Multiplying the Sum and Difference of Two Terms

Another special product is the product of the sum and difference of the same two terms.

a. Multiply:

Notice that the linear terms canceled out, leaving the **difference of squares**. This can be generalized as the following identity.

Find the product.

|  |  |
| --- | --- |
| b.  | c.  |
| d.  |  |