

Ch4.6 Special Products.

Square of a Binomial

The square of a binomial is a trinomial consisting of

the square of the first term + twice the product of the two terms + the square of the last term.

For x and y , the following hold.

$$(x + y)^2 = x^2 + 2xy + y^2$$

$$(x - y)^2 = x^2 - 2xy + y^2$$

Product of a Sum and Difference of Two Terms

$$(x + y)(x - y) = x^2 - y^2$$

Ex1) Multiply.

a) $(m + 3)^2$

b) $(a - 4)^2$

c) $(2x - 5y)^2$

d) $(4m - \frac{1}{2})^2$

e) $x(4x - 3)^2$

Ex2) Multiply.

a) $(x + 4)(x - 4)$

b) $(5m + 3)(5m - 3)$

c) $(x - \frac{1}{4})(x + \frac{1}{4})$