Special Products

Perfect Squares

$$(a+b)^2 = a^2 + 2ab + b^2$$
$$(a-b)^2 = a^2 - 2ab + b^2$$

Difference of Squares

$$(a-b)(a+b) = a^2 - b^2$$

1. Multiply the following.

A. $(x+3)^2$

B. $(x-3)^2$

C. $(3x+5)^2$

2. Multiply the following.

A. $(x+3)(x-3)$

B. $(x-3)(x+3)$

C. $(3x+5)(3x-5)$

3. Multiply the following (use the general foil method).

A. $(x+3)(x-5)$

B. $(2x+3)(3x-5)$

C. $(2x-3)(3x-5)$

4. Multiply the following (be careful of powers).

A. $(x^2+3)(x-5)$

B. $(2x+3)(3x^2-5)$

C. $(2x^3-3x)(3x^2-5)$