

Name \_\_\_\_\_

Find the product using FOIL. Write your answers in simplest form.

1. 

$$(2x + 3)(x + 2) = 2x(x + 2) + 3(x + 2) = 2x^2 + 4x + 3x + 6 = 2x^2 + 7x + 6$$

2.  $(x + 2)(x + 2) = x^2 + 4x + 4$

3.  $(x + 3)(x + 4) = x^2 + 7x + 12$

4.  $(2x + 3)(x + 2) = 2x^2 + 7x + 6$

5.  $(2x + 1)(x + 3) = 2x^2 + 7x + 3$

6.  $(3x + 2)(x + 2) = 3x^2 + 8x + 4$

Find the absolute value of the product of opposite binomials.

7.  $(3x + 2)(3x - 2) = 9x^2 - 4$

8.  $(4x + 3)(4x - 3) = 16x^2 - 9$

Find the square of a binomial coefficient (find the product).

9.  $(a + 3)^2 = a^2 + 6a + 9$

10.  $(b + 7)^2 = b^2 + 14b + 49$

11.  $(y + 8)^2 = y^2 + 16y + 64$

12.  $(3a + 4)^2 = 9a^2 + 24a + 16$