

# Algebra I

## 11.3 Worksheet #3

Polynomial Multiplication Using the Distributive Property.

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Hour: \_\_\_\_\_

Multiply by using the Distributive Property.

1.  $2(2a^2 - 6a + 7)$

2.  $7(3x^2 - 5x + 2)$

3.  $4(2a^2 - 3a + 5)$

4.  $a^2(a^4 + a^3)$

5.  $b^5(b^4 + b^2)$

6.  $m^2(m^3 - m^2)$

7.  $k^3(k^4 + k)$

8.  $m(m^5 + m^2)$

9.  $p(p^2 + p)$

10.  $3(4g^3 - 3g^2 + 2g + 6)$

11.  $5(2y^3 - 4y^2 + y - 3)$

12.  $a^2(a^3 + a^2 + a + 5)$

13.  $7a^2(a^3 - 5a^2 + 4)$

14.  $2y^3(3y^4 - 7y^3 + 2y^2)$

15.  $5b(3b^2 - 6b)$

16.  $3x(4x^2 - 3x)$

17.  $2c(6c^3 - 5c^2)$

18.  $-2a(-3a^2 - 7a + 4)$

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

20.  $-g(-g^2 - 4g + 2)$

**Multiply.**

1.  $-2(5 - 4x)$

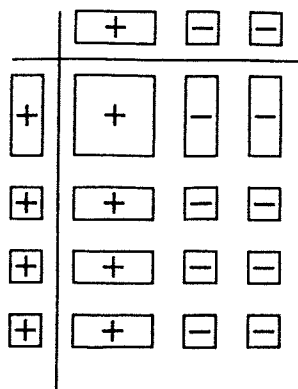
2.  $-4(2x + 5)$

3.  $-3(4x - 5)$

4.  $-3(2 - 6x)$

Write the factors and the product modeled by the tiles.

\_\_\_\_\_



The "FOIL" name is a method to multiply two binomials. It stands for:

F \_\_\_\_\_ O \_\_\_\_\_ I \_\_\_\_\_ L \_\_\_\_\_

Multiply by using the FOIL method.

1.  $(x + 2)(x + 3)$

F \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

O \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

I \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

L \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

= \_\_\_\_\_

4.  $(2x + 1)(x + 7)$

F \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

O \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

I \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

L \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

= \_\_\_\_\_

2.  $(x + 4)(x + 1)$

F \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

O \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

I \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

L \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

= \_\_\_\_\_

5.  $(x - 1)(3x + 5)$

F \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

O \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

I \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

L \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

= \_\_\_\_\_

3.  $(x - 4)(x - 3)$

F \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

O \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

I \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

L \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

= \_\_\_\_\_

6.  $(2x - 3)(3x - 2)$

F \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

O \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

I \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

L \_\_\_\_\_ · \_\_\_\_\_ = \_\_\_\_\_

= \_\_\_\_\_