3.7 Multiplying Polynomials

Expand & Simplify

Rainbow

Skittles

$3(x+6)$

$3x + 18$

$4x^2 y(2+y)$

$8x^2 y + 4x^2 y^2$

$3x(4x - 7y - 1)$

$12x^2 - 21xy - 3x$

$7y(3x + 4 + 7y)$

$21xy + 28y + 49y^2$

Expand and collect like terms.

$$4(x-2)-2(x+3)$$

$4x-8-2x-6$

$2x-14$

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

$2x^4 - 10x^3 - 2x^2 - 10x$

$$4(3xy + 7x - 5) - 3(2x + 5xy - 1)$$

$$12xy + 28x - 20 - 6x - 15xy + 3$$

$$-3xy + 22x - 17$$

Homework

$P1 \rightarrow \# 1-4$

$P2 \rightarrow \# 3-8$

$$(x + 2)(x + 4)$$

$$(x+2)(x+4)$$

FOIL

First
outside
inside
last

$$x^2 + 4x + 2x + 8$$

$$x^2 + 6x + 8$$

HOMEWORK

Numbers, Relations & Functions 10   Name_____

Mutilpying Polynomials

Date_____

Find each product.

1) $5(6b + 3)$

2) $8(6r + 3)$

3) $2(8x + y)$

4) $5mn(3m + 2n)$

5) $7(x - 7y)$

6) $2mn(8m - 2n)$

7) $(4x - 2y)(6x + 6y)$

8) $(6x + 3y)(4x - 7y)$

9) $(2x + 5y)(7x - 8y)$

10) $(3x + 6y)(5x - 8y)$

11) $(5x - 4y)(5x^2 - 4xy + 6y^2)$

12) $(8x - 7y)(6x^2 + 8xy + 3y^2)$

13) $(6a^2 - 2a - 3)(8a + 2)$

14) $(2k^2 + 8k - 2)(7k + 4)$

15) $(7a^2 - 2ab + 2b^2)(a^2 - 2ab - 8b^2)$

16) $(x^2 - 4xy + 2y^2)(x^2 - 2xy - 7y^2)$