Unit 3: Polynomials

Day 2: Multiplying Polynomials

Today we will....

1. Learn how to multiply two binomials.

Multiplying Binomials

A binomial has two terms that are added or subtracted together.

Ex: x + 3, 2r - 7

When multiplying two binomials, we multiply each term in the first binomial by each term in the second binomial.

Ex: (x + 4)(x + 5)

Step 1: Multiply the first term in the first bracket to each term in the second bracket.

Step 2: Multiply the second term in the first bracket to each term in the second bracket.

Step 3: Collect and simplify like terms

Examples: Expand and Simplify the following.

1) (x - 6)(x + 1)

2) (3x - 2)(x + 7)

Special Case: $(a+b)^2 = \underbrace{(a+b)(a+b)}_{\text{multiplication of binomials}}$

Expand and simplify:

$a.)\,(x-2)^2$

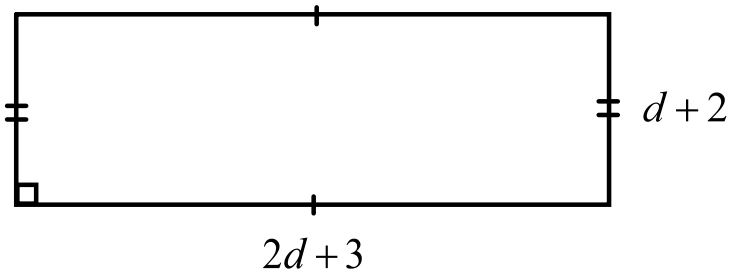
$b.)\,(2x+5)^2$

$c.)\ 3(4x-1)^2$

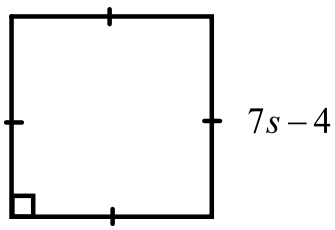
$d.)\ -2(3x+1)(2x+3)-11$

Write an expanded expression for each area:

a.)



b.)



Homework

p. 297 #1ace, 2ace, 3odd, 4ace, 7, 17ace