

Polynomials

Day 9: Factoring a Difference of Squares

Today we will....

1. Learn how to identify a Difference of Squares
2. Develop a strategy for factoring a Difference of Squares

Let's expand the following.....

$$(x - 4)(x + 4)$$

$$(9x - 5)(9x + 5)$$

What do you notice?

How would you factor these?

$$x^2 - 25$$

$$4c^2 - 49$$

The Rule!

When a polynomial has the form _____, it factors as _____.

Don't forget.....look for COMMON FACTORS first!!!

Examples: Factor each of the following.

1. $y^2 - 81$

2. $225 - 16x^2$

3. $8g^4 - 50h^4$

4. $-18x^4 + 32x^2$

5. $(5x - 2)^2 - (3x - 4)^2$

6. $x^4 - (2x - 1)^2$

Homework:
pg. 307 #4 + Handout