



Math Virtual Learning

Algebra 2A

Multiplying Polynomials

April 13, 2020



Lesson:

Practice Multiplying Polynomials

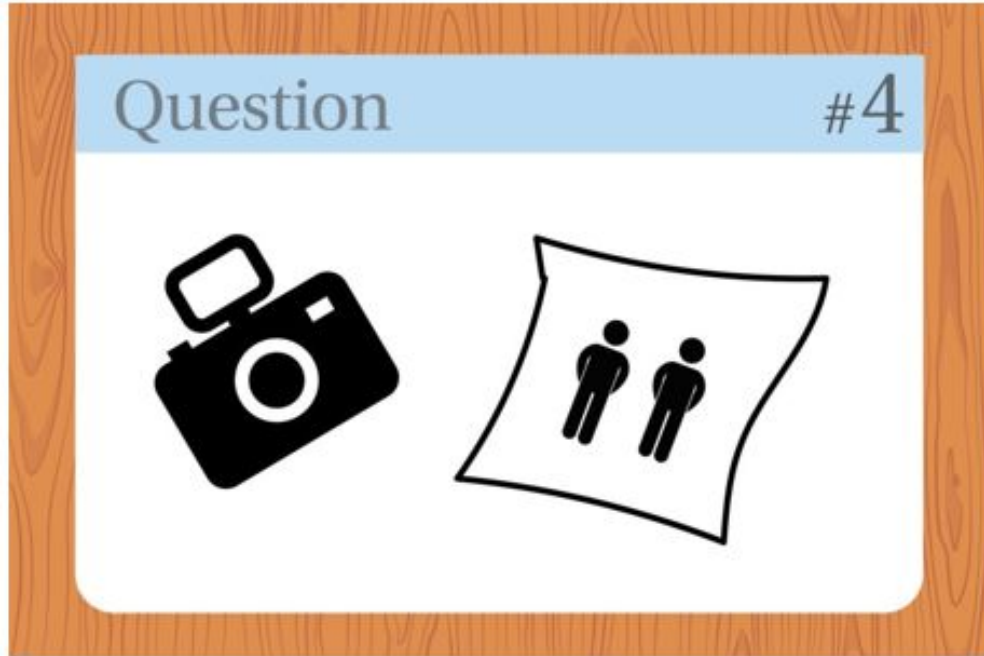
Learning Target:

LT D1 I can add, subtract, and multiply polynomials.

Objective:

Students will be able to multiply polynomials with both the FOIL and Box method.

Warm Up



A man is looking at a photograph of someone. His friend asks who it is. The man replies, "Brothers and sisters, I have none. But that man's father is my father's son." Who was in the photograph?

Warm Up

Answer: His Son.

Lesson

You will need to watch these videos:

[Polynomial Multiplication Box Method](#)

[Polynomial Multiplication Distributive Property](#)

These videos go through two different methods for multiplying out polynomials. Both methods will work, so please use the one that you are most comfortable with.

Practice

Now try these. The first problem is shown as an example on page 7. You can check your answers on slide 8.

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

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

$$(2x + 3)(6x^2 - 5x - 6)$$

$$(x^2 + 3x + 5)(2x^2 - 6x + 7)$$

Example Problem

$$\underbrace{(x+2)}_{2 \text{ terms}} \underbrace{(x^2+3x+5)}_{3 \text{ terms}}$$

2 terms

3 terms

	x^2	$3x$	5
x	x^3	$3x^2$	$5x$
2	$2x^2$	$6x$	10

↙ Multiply
inside

$$= x^3 + 3x^2 + 5x + 2x^2 + 6x + 10$$

Combine like terms

$$= x^3 + 5x^2 + 11x + 10$$

Practice

Now check your answers.

$$x^3 + 5x^2 + 11x + 10$$

$$12x^3 + 8x^2 - 27x - 18$$

$$12x^3 - 11x^2 - 13x + 10$$

$$2x^4 - x^2 - 9x + 35$$

Common Questions

Question: Do subtraction signs matter?

Answer: Yes they do. They need to stay with their term as a negative sign when you multiply.

Questions: Does it matter which polynomials I multiply first.

Answer: No.

Practice

When you are comfortable multiplying, then go ahead and try the practice problems by clicking on this Khan Academy link. You will get feedback on your answers!

[Practice: Multiplying binomials by polynomials](#)

Additional Practice Resources

Additional Resources

[Math is Fun](#)

Additional Practice

[Kuta: Multiplying Polynomials](#)

[Multiplying Polynomials](#)