


Multiplying Polynomials #1 Notes

Example 1: Multiply a polynomial by a monomial

$$-2x^2(3x^2 - 7x + 10)$$


$$-2x^2(3x^2 - 7x + 10)$$

Use the distributive property to multiply the monomial in


$$-2x^2 \cdot 3x^2 + -2x^2 \cdot -7x + -2x^2 \cdot 10$$

$$-6x^4 + 14x^3 - 20x^2$$

**Remember that when you are multiplying variables, you should add the exponents.

Example 2: Multiply a polynomial by a monomial

$$5a^2(-4a^2 + 2a - 7)$$


$$5a^2(-4a^2 + 2a - 7)$$

$$5a^2 \cdot -4a^2 + 5a^2 \cdot 2a + 5a^2 \cdot -7$$

**You do not need to write this step out. You can simply do the multiplication in your head and write each term of the answer out. I have written this step out so you can see the things I am multiplying together to get the terms of my answer.

$$-20a^4 + 10a^3 - 35a^2$$