

Lesson 5 – Multiplying Polynomials

We have already seen questions like this:

$$4b(2b - 5)$$

We understand that we have to distribute the first term ($4b$) onto each term inside the brackets.

But what happens when the first polynomial contains more than one term?

PLEASE NOTE: I AM GOING TO USE THE CASE OF A BINOMIAL MULTIPLIED ONTO A BINOMIAL TO DISCUSS A CONCEPT THAT WILL BE APPLIED LATER AND USE A SITUATIONAL TECHNIQUE IN THIS INSTANCE TO DO IT

Example:

$$(3b - 2)(2b + 4) =$$

In this question we can use a situational technique called FOIL to solve. FOIL stands for First, Outside, Inside, Last and works like this:

$$(3b - 2)(2b + 4) =$$

Examples to try:

$$(2n - 5)(3n + 3) =$$

$$(5t^2 - 5)(-2t + 3) =$$

$$(2b + 11)(-a - 1) =$$

Notes:

- You do not need **Like** terms when MULTIPLYING!
- **Each term of the first polynomial is distributed onto each term of the second**
- The sign of the term stays with the term it proceeds