Lesson 2-12 Multiplying and Dividing a Polynomial by a Monomial

Before we start multiplying let’s review the times table and how it works.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| $$×$$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |

We do the exact same thing when we multiply polynomials together with alga tiles

Multiply each of the following together with alga tiles







There is a restriction with alga tiles though. What if we want to multiply with more than one variable? Or we get into a degree higher then two.

This is why we also learn how to do it symbolically. Once again through distributive property where every term in the polynomial is multiplied by the monomial.

HINT: multiply the numbers together and then multiply the variables together

 

 

To divide by a monomial with alga tiles we must just reverse the process of multiplication, as we know what is in the product spot and we all ready know one of the factors. So we must build a perfect rectangle that fits with factor.





To do it symbolically we just divide each term in the polynomial by the monomial.

 

 

 

Home-work pg 256 #11, 12, 16, 20, 21