# Math 9 Section 5.4 - Dividing Polynomials 

Homework: Section 5.4 on Pg. 189; \#1-3half, 4-5all, 6, 8, 10half
Last time, we used rectangles to solve multiplication problems because finding the area is the same as multiplying the sides together.

Area $=$


But what if I told you the area and wanted you to find one of the sides...?
Area $=72$
12


Now we can use rectangles for division too! This time, dividing is the same as finding one of the sides of the rectangle.



From our algebra tile pictures, we can see the pattern for dividing polynomials:

1. $\qquad$
2. $\qquad$
3. $\qquad$
$\qquad$
$\frac{10 x^{4}-8 x^{2}-2 x}{-2 x}=$

$$
2 x(3 x-5)-\left(12 x^{2}-6 x\right) \div 3 x=
$$

