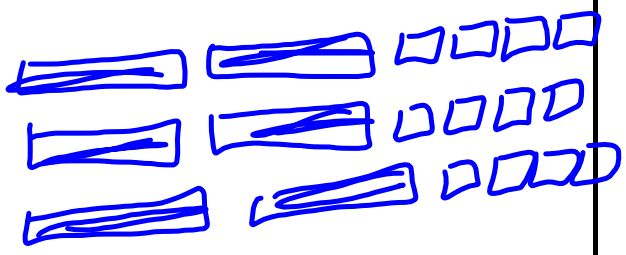
Section 5.5

December 22, 2016

Multiplying and dividing a polynomial by a constant

Use algebra tiles

Draw 3 rows of -2m + 4



$-6m + 12$

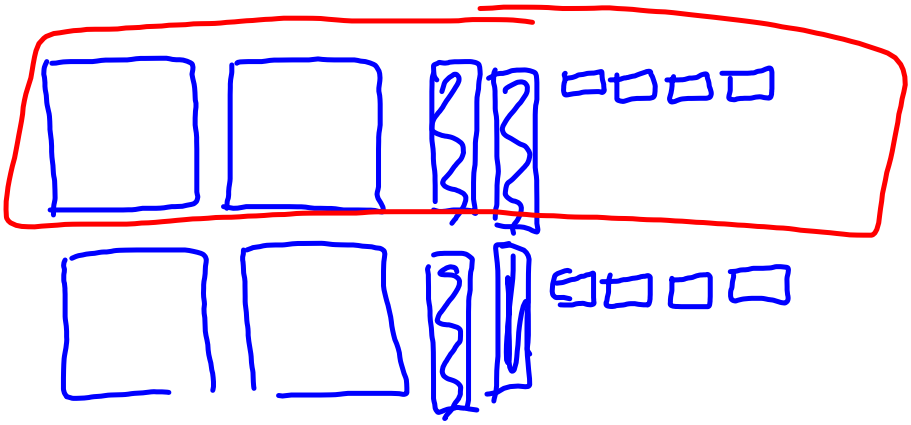
Distributive Property

$3(-2m+4)$

$-6m + 12$

Write the multiplication sentence

a)



$2(2x^2-2x+4)$

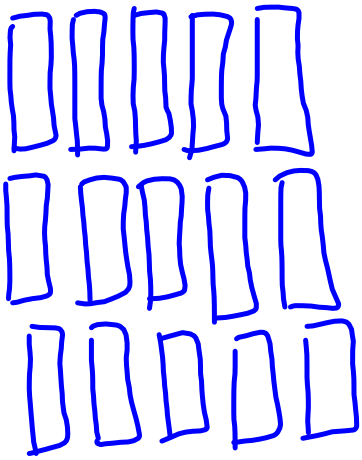
Multiply

$3(5r)$

# of rows

What is in each row

Algebra tiles



Distributive property

$3(5r)$

$15r$

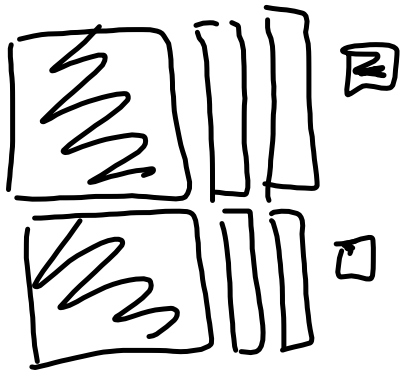
$(5r)3$

4×3

3×4

Multiply: $2(-n^2 + 2n - 1)$

Algebra Tiles

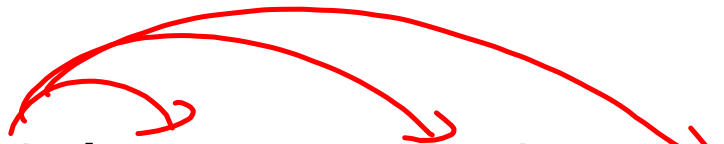


Distributive property

$2(-n^2 + 2n - 1)$

$-2n^2 + 4n - 2$

Multiply



$3(-5m^2 + 2m - 8)$

$-15m^2 + 6m - 24$

Division of Polynomial by a Constant

A. $\frac{4s^2 - 8}{4}$

$\frac{4s^2}{4} - \frac{8}{4}$

$1s^2 - 2$

b. $\frac{-3m^2 + 15mn - 21n^2}{-3}$

$\frac{-3m^2}{-3} + \frac{15mn}{-3} - \frac{21n^2}{-3}$

$1m^2 - 5mn + 7n^2$

$$\frac{12x^2 - 3x + 6}{3}$$

$$\frac{12x^2}{3} - \boxed{\frac{3x}{3}} + \frac{6}{3}$$

$$4x^2 - 1x + 2$$

Multiply or Divide

a) $\frac{-4x^2-8x+24}{-4}$

$\frac{-4x^2}{-4}-\frac{8x}{-4}+\frac{24}{-4}$

$1x^2+2x-6$

b) $-6(x^2-4x+5)$

$-6x^2+24x-30$

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

$6x^2+21x-15+9x$

$6x^2+21x+9x-15$

$6x^2+30x-15$

d) $\frac{-15x^2-10x+30}{-5}$

$\frac{-15x^2}{-5}-\frac{10x}{-5}+\frac{30}{-5}$

$3x^2+2x-6$

Classwork

Page 246

5 [sketch tiles and give the answer],

11[a,c,e...sketch tiles]

13 [no tiles]

15 [a,c,e]

16 [a, c, e, g]