

Homework Questions???

12. a) Which polynomial must be added to $5x^2 + 3x - 2$ to get $7x^2 + 5x + 1$?
b) Which polynomial must be subtracted from $5x^2 + 3x - 2$ to get $7x^2 + 5x + 1$?

Justify your answers.

$$(5x^2 + 3x - 2) - (-2x^2 - 2x - 3) = 7x^2 + 5x + 1$$

$$5x^2 - \underline{-2x^2} = 7x^2$$

$$3x - \underline{-2x} = 5x$$

$$-2 - \underline{-3} = 1$$

$$\cancel{-2 - 3} = -5$$

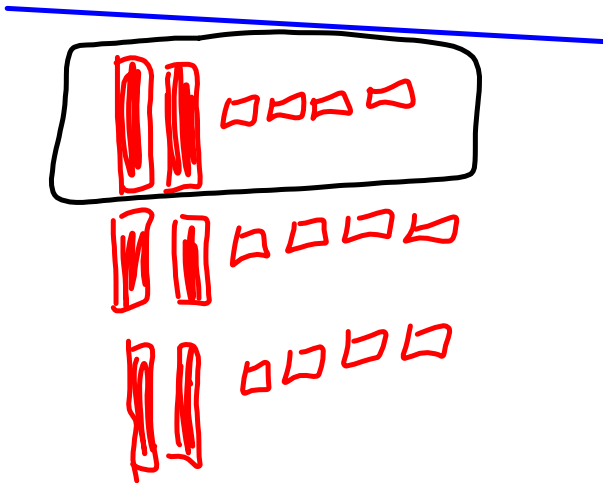
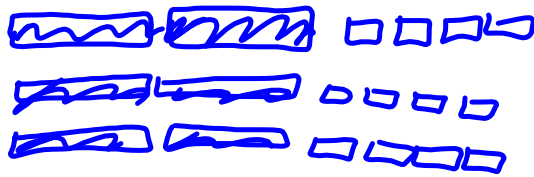
Section 5.5

January 7, 2016

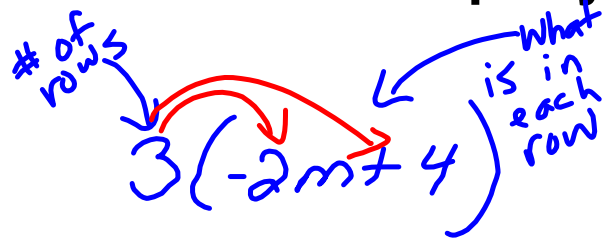
Multiplying and dividing a polynomial by a constant

Use algebra tiles

Draw 3 rows of $-2m + 4$



Distributive Property



$$-6m + 12$$

Write the multiplication sentence

a)

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

4
 $A = bh$ 3
 $A = bh$
 $= 4 \times 3$
 $= 12$

b)

$A = bh$

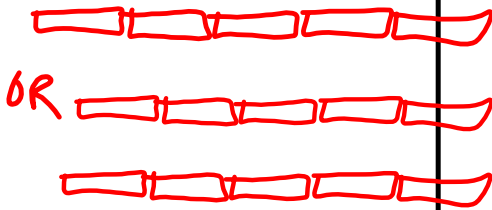
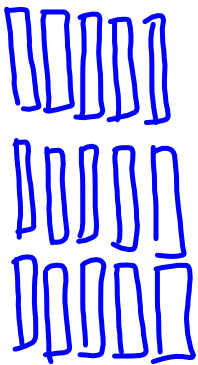
$A = (2x+2)(3)$
 $= 6x+6$

$A = 3(2x+2)$
 $= 6x+6$

Multiply $3(5r)$

rows → 3 ← *What is in each row*

Algebra tiles

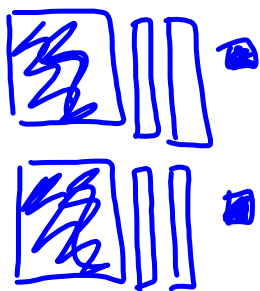


Distributive property

$$\begin{array}{l} \curvearrowright \\ 3(5r) \\ 15r \end{array}$$

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

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

$$1s^2 - 2$$

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

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

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

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

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

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

$$(12x^2 - 3x + 6) \div 3$$

Multiply or Divide

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

$$x^2 + 2x - 6$$

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

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

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

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

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

$$\boxed{6x^2 + 30x - 15}$$

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

$$3x^2 + 2x - 6$$

Homework

Page 246 5^(a) [sketch tiles], 6 [sketch tiles]
9 sketch rectangles, 11, 13
15 [a,c,e], 16 [a, c, e, g] *← No tiles*

~~Worksheet~~