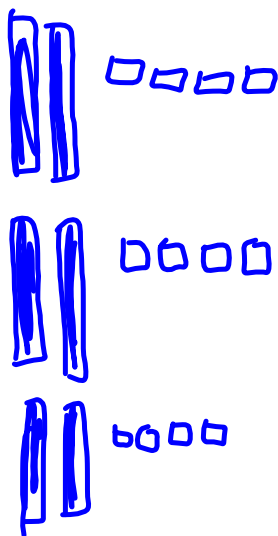


Section 5.5 December 18, 2017

Multiplying and dividing a polynomial by a constant

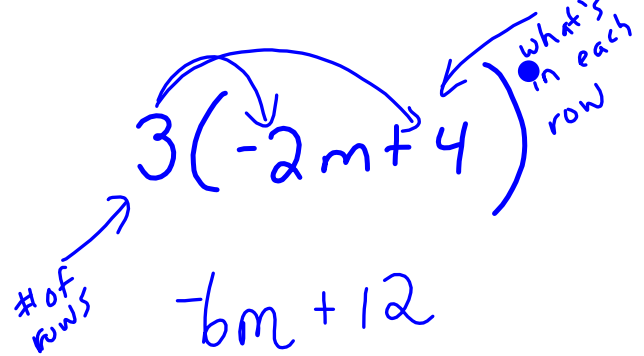
Use algebra tiles

Draw 3 rows of $-2m + 4$



$$-6m + 12$$

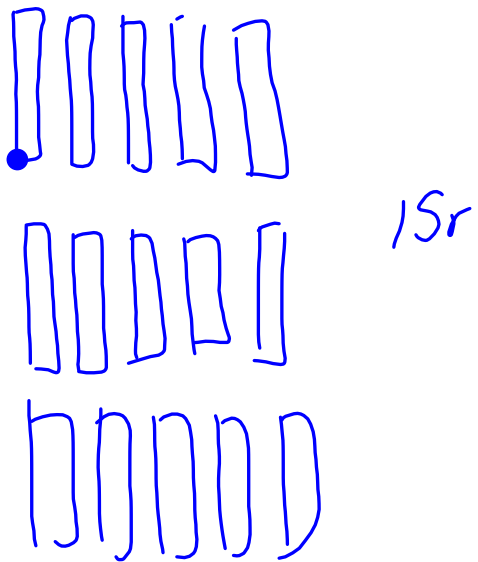
Distributive Property



Multiply

of rows $\rightarrow 3(5r)$ \leftarrow What is in each row

Algebra tiles

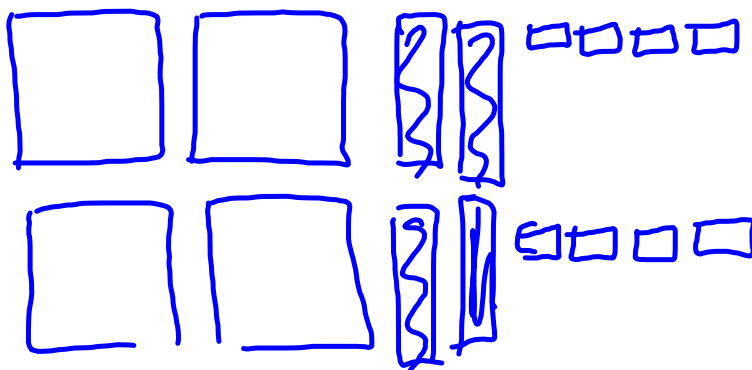


Distributive property

$3(5r)$
15r

Write the multiplication sentence

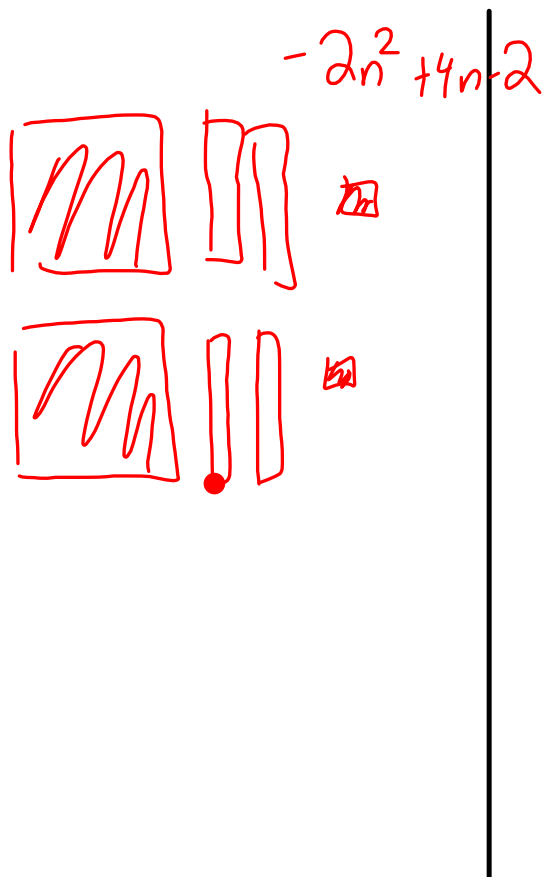
a)



rows $\rightarrow 2(2x^2 - 2x + 4)$ each row

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

Algebra Tiles

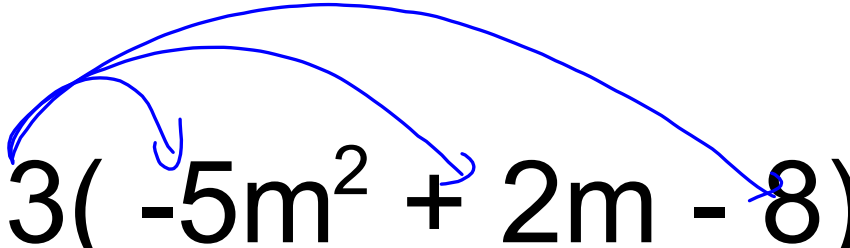


Distributive property

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

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

Multiply

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


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



Division of Polynomial by a Constant

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

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

$$|s^2 - 2$$

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

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

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

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

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

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

Multiply or Divide

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

$$\frac{-4x^2}{-4} \left[\frac{-8x}{-4} \right] + \left[\frac{24}{-4} \right]$$

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

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

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

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

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

Group
simplify

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

$$6x^2 + 30x - 15$$

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

$$\frac{-15x^2}{-5} \left[\frac{-10x}{-5} \right] + \left[\frac{30}{-5} \right]$$

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

$$(2x^2 - 3x + 6) 4$$

$$4(2x^2 - 3x + 6)$$

Classwork

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5 A.[sketch tiles and give the answer],

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

13 [no tiles]

15 [a,c,e]

16 [a, c, e, g]

} Answers
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