

Chapter 5 Test

5.5-5.6 quiz

January 7 , 2020

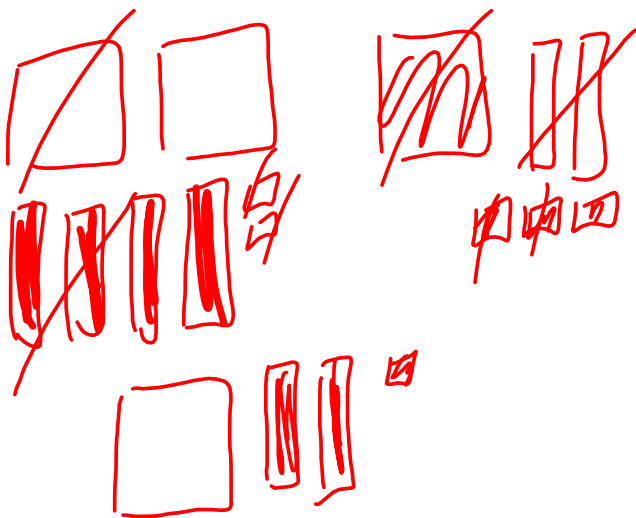
Warm-Up

1.	Monomial, Binomial or Trinomial?	<i># in front variable</i> Coefficient[s]	<i>highest exponent</i> Degree	<i>just a number</i> Constant
Polynomial				
A. $4x - 3$	<i>binomial</i>	4	1	-3
B. $-3x^2 + 4x + 7$	<i>trinomial</i>	-3, 4	2	7
C. $3x$	<i>monomial</i>	3	1	<i>none</i> 0
D. -4	<i>monomial</i>	<i>none</i>	<i>none</i>	-4
e) $2x^2 - x + 4$	<i>trinomial</i>	2, -1	2	4

2. Use algebra tiles to show how you would simplify the following...draw algebra tiles for each part of the question and the final answer!

Algebra Tiles

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



Grouping like
Terms

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

$2x^2 - 4x + 2 - 1x^2 + 2x - 3$

$(2x^2 - 1x^2 - 4x + 2x + 2 - 3)$

$x^2 - 2x - 1$

Simplify [remember...question, group, simplify]

$$4x^2 - 3x + 2 - 4x - 6x^2 - 5$$

$$\textcircled{4}x^2 - \textcircled{6}x^2 - \boxed{3x} - \boxed{4x} + \boxed{2} - \boxed{5}$$

$$-2x^2 - 7x - 3$$

Subtract the following...show your steps!

1) Remove the brackets

2) Group

3) Simplify

$$(-3x^2 - 7x + 2) - 2(-x^2 - 6x - 3)$$

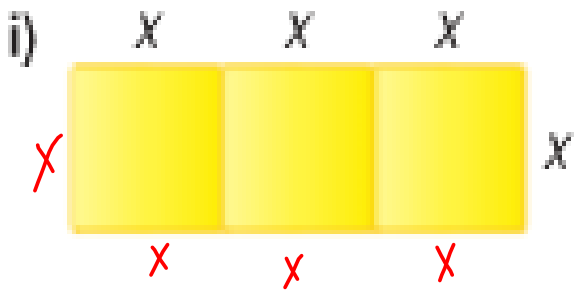
$$-3x^2 - 7x + 2 + 2x^2 + 12x + 6$$

$$(-3x^2 + 2x^2) + (-7x + 12x) + (2 + 6)$$

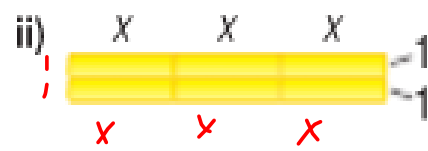
$$-1x^2 + 5x + 8$$

Using Polynomials to represent perimeter

↳ distance around outside



$$P = 8x$$



$$P = 6x + 4$$

Solve the perimeter if $x = 2$

$$P = 6x + 4$$

$$= 6(2) + 4$$

$$12 + 4$$

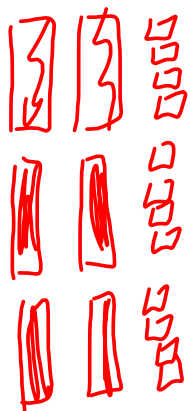
$$16$$

Section 5.5

Multiplying and dividing a polynomial by a constant

Use algebra tiles

Draw 3 rows of $-2m + 4$



Simplified polynomial $-6m + 12$

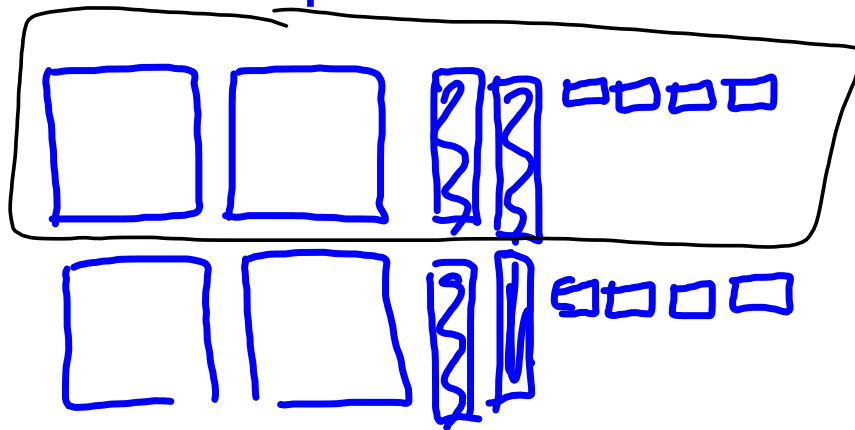
Distributive Property

$$3(-2m + 4)$$

$$-6m + 12$$

Write the multiplication sentence

a)



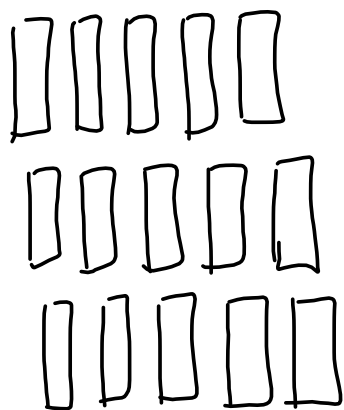
$$2(2x^2 - 2x + 4)$$

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

Multiply

$$\begin{array}{c} \text{\# of rows} \rightarrow 3(5r) \leftarrow \text{What is in each row} \\ \text{row} \end{array}$$

Algebra tiles



Distributive property

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

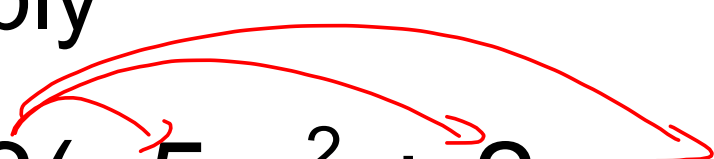
Multiply:

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

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

$$1s^2 - 2$$

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

-3

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

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

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

3

$$\frac{12x^2}{3} \left[-\frac{3x}{3} \right] + \frac{6}{3}$$

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

$$(12x^2 - 2x + 4) \div 2$$

$$\frac{12x^2}{2} - \frac{2x}{2} + \frac{4}{2}$$

$$6x^2 - 1x + 2$$

Multiply or Divide

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

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

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

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

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

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

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

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

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

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

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

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

Homework

Page 246-247

5

7 [i, iii, v]

8 (i, iii)

11

13 [no tiles]

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Answers

Warm-Up
Quiz