



## WARM-UP

Simplify the following:

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

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

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

$$-2x^2 + 3x - 9$$

B.  $\frac{-4(x^2 + 8x - 16)}{2}$

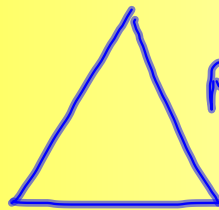
$$\frac{-4x^2 - 32x + 64}{2}$$

$$-2x^2 - 16x + 32$$



## Any Homework Questions???

20. a) The perimeter of an equilateral triangle is represented by the polynomial  $15a^2 + 21a + 6$ . Determine the polynomial that represents the length of one side.
- b) Determine the length of one side when  $a = 4$  cm.



$$P = \frac{15a^2}{3} + \frac{21a}{3} + \frac{6}{3}$$

one side

$$5a^2 + 7a + 2$$

$$5(4)^2 + 7(4) + 2$$

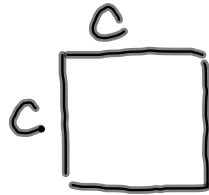
$$5(16) + 28 + 2$$

$$80 + 28 + 2$$

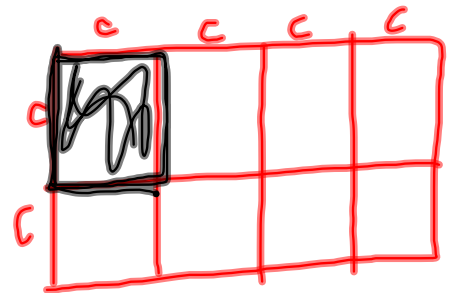
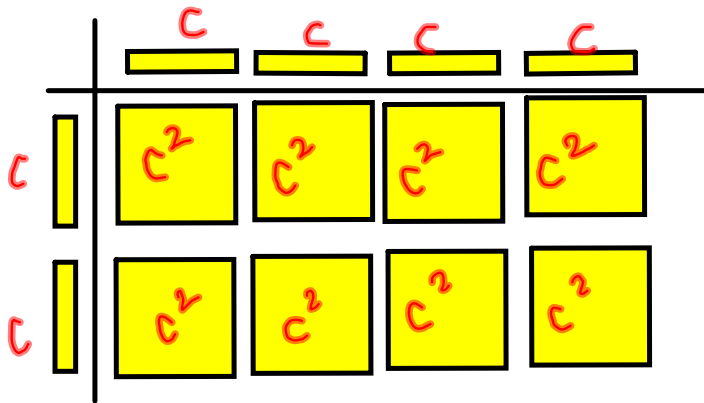
$$110$$



## Section 5.6 Multiplying and Dividing a Polynomial by a Monomial



The expression  $(2c)(4c)$  is the product of two Monomials.  
Using algebra tiles form a rectangle that has the dimensions  $2c$  and  $4c$

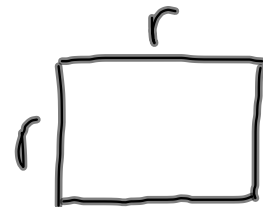


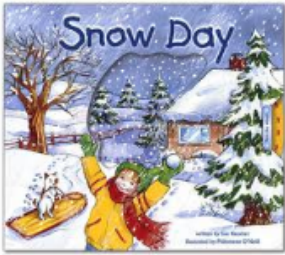
$$(2c)(4c) = 8c^2$$

Remember Laws of Exponents: when multiplying  
Base is the same you add the exponents

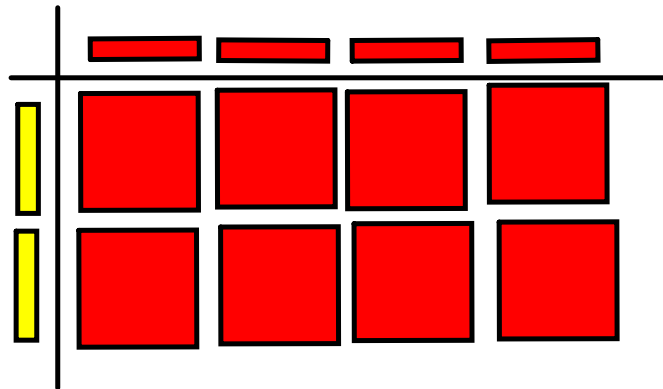
$$(2c^1)(4c^1) = 8c^2$$

$$(3r^1)(2r^1) = 6r^2$$





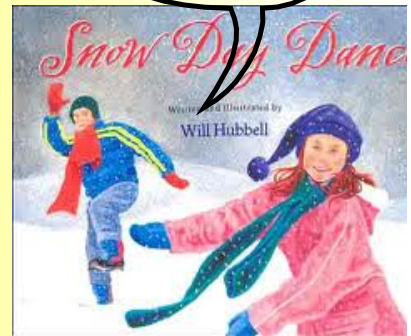
$$(2c) (-4c) = -8c^2$$



What are the dimensions of this rectangle?



**Guess you did do it!**



$2c-3$   $-4c$

$-4(2c-3)$

$-8c+12$

a)  $(2c-3)(-4c)$

b)  $-4c(2c-3)$

$-8c^2+12c$

Determine the product



A.  $2x(3x + 4)$

$$6x^2 + 8x$$

B.  $-2x(-3x - 4)$

$$6x^2 + 8x$$

c)  $-2(3x - 5)$   
 $-6x + 10$

Multiply

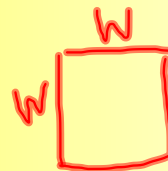
A.  $(3m)(4m)$

$$12m^2$$



B.  $2n(n + 2)$

$$2n^2 + 4n$$



C.  $2(2n^2 + 1)$

$$4n^2 + 2$$

D.  $-2w(2w - 6)$

$$-4w^2 + 12w$$

Determine the product

$$8x(2x - 3y)$$

$$16x^2 - 24xy$$



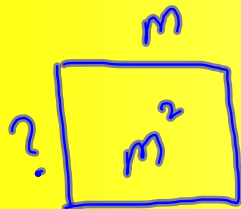


Dividing a Monomial and a Binomial by a Monomial

Divide base is same subtract exponents

A.  $\frac{-10m^2}{2m}$

$-5m$



B.  $\frac{30k^2 - 18k}{-6k}$

$\frac{30k^2}{-6k} - \frac{18k}{-6k}$

$-5k + 3$



$\frac{3}{3} = 1$

$\frac{50}{50} = 1$

$\frac{k}{k} = 1$

C.  $\frac{-6r^2 + 4r}{2r}$

$$-\frac{6r^2}{2r} + \frac{4r}{2r}$$

$$-3r + 2$$



Determine the quotient

$$\frac{24x^2 + 6xy}{3x}$$

$$\frac{24x^2}{3x} + \frac{6xy}{3x}$$
$$8x + 2y$$



Homework  
Page 256-257



- 11 [a, c, e]
- 12 [a, c, e, g]
- 16 [a, c, e, g]
- 19 all
- 20 all
- 21 all

Test on Friday  
Page 259-261 Review.