

Math 9: Polynomials II Final Exam Review

• **Multiplying and Dividing Monomials**

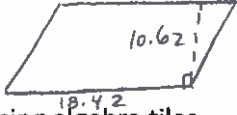
a. Determine the product using algebra tiles.

$(2x)(4x)$ $(3x)(3y)$

b. Multiply.

$(4x)(6x)$ $(x)(-6x)$ $(4y)(7y)$ $\frac{(2x)(9x)}{3}$

c. What is an expression for the area of the parallelogram?



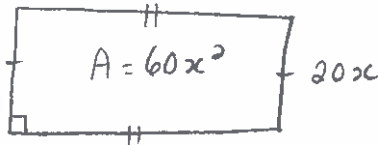
d. Divide using algebra tiles

$\frac{-6x^2}{2x}$ $\frac{5xy}{5y}$

e. Divide.

$\frac{32x^2}{4x}$ $\frac{500t}{20}$ $\frac{9.5r^5}{-6}$ $-90pn \div 12n$ $\frac{5x^2 \div 15x}{3}$

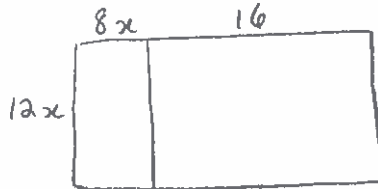
f. What is the missing dimension?



g. A rectangular space is 12 times as long as it is wide. If the area of the rectangle is 384 cm², would a second rectangle with dimensions 14 cm by 50 cm fit in the 1st rectangle?

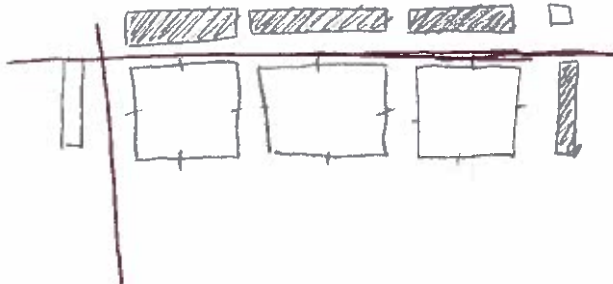
• **Multiplying Polynomials by Monomials**

a. What multiplication statement is represented by the model?



b. Determine the product of the above model.

c. What multiplication statement is represented by the tiles?



d. Expand using the distributive property.

$$(8x)(12x - 4)$$

$$(8n - 28)(32.8)$$

$$\frac{(7v + 28)(-2)}{8}$$

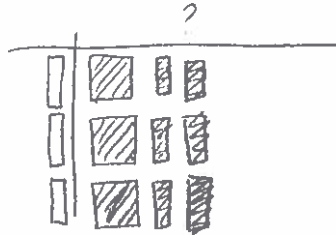
$$(6x^2y)(8x^2 - 24xy + 8y)$$

e. A rectangle has a width of $12x$ and a length of $16x - 12$. What is the expanded expression for the area? What is the simplified expression for the perimeter?

f. A park is $(12x)$ m long. Its width is 8 m less than the length. What is an expression for the area of the park? If $x = 15$, what is the area of the park?

• **Dividing Polynomials by Monomials**

a. What division statement is represented by the tiles? What is the quotient?



b. Divide.

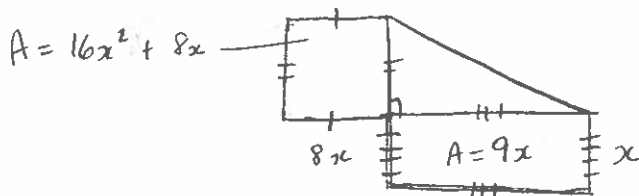
$$\frac{8y^2 + 16.8}{8y}$$

$$\frac{8x^2 + 32xy}{4x}$$

$$\frac{(4b^2 - 2ab + 2b)}{3}$$

c. A water truck holds 10 m^3 of water. The pool is a rectangular prism with dimensions of $(2x + 3)$ by $5x$ by 2, in metres. Determine the expression that represents the number of truck loads of water needed.

d. What is the area of the triangle?



Questions to Review

Chapter 7 Get Ready

Page 260 #3 - 10

261 #11 - 16

7.1 Multiplying and Dividing Monomials

Page 262 # 17 - 23, (I would look at these!!!)

269 # 4 - 11

7.2 Multiplying Monomials by Polynomials

Page 270 #12, 13

270 #14 - 20 (I would look at these!!!)

275 # 4 - 9, 15

275 # 10 - 14, 16

Polynomials II Assignment

Polynomials II Test