

Name: _____

Math 90
Multiplying & Dividing Polynomials

1. Multiply the polynomials.

a) $(w^7x^3)(-3w^2x^8z)$

b) $(4mn)(m^2n)(-n)$

(5)

c) $(6p^2)(3p^2 - 2p + 7)$

d) $(7x)(3y)(2x + y)$

e) $(-5xy)(-3x^2 - 6y^2 + 7x + 8y)$

2. Divide the polynomials.

a) $\frac{72x^6}{6x^4}$

b) $\frac{28x^6y^4z^3}{-7x^5y^4z}$

(5)

c) $\frac{42x^4 + 9x^3 - 27x^2 + 3x}{3x}$

d) $\frac{x^7y^2 - xy^6}{xy}$

e) $\frac{28x^4y^2 + 56x^2y^2 - 63x^5}{7x^2}$

3. a) Use algebra tiles to display the following multiplication.

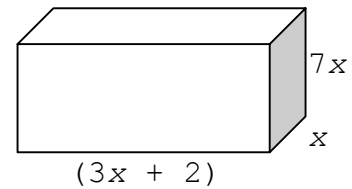
$$(3x)(2x + 3)$$



(2)

- b) What is the product of the diagram?

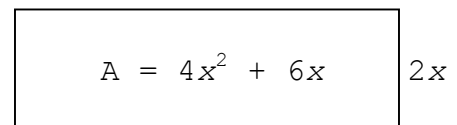
4. a) Determine the volume of the prism shown.



(4)

- b) Determine the surface area of the prism shown.

5. a) Determine the length of the rectangle shown.



(6)

- b) Determine the perimeter of the rectangle shown.

- c) If $x = 3\text{cm}$, determine the following dimensions:

Width ____cm Length ____cm Perimeter ____cm Area ____cm²