

Name: _____ Date: _____ Period: _____

Unit 1 Test Review

1. Classify each polynomial according to degree and number of terms.

$7p^4$	$4x^3y^2+6x^2y-2xy$	$-5xy^2-2x^5y$
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2. Write each polynomial in standard form and then name it based on the degree and the number of terms.

$-9x+6x^2$	$3y-4-y^3$	$7-11v$
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3. Add/subtract the polynomials, and then classify the answer according to degree and number of terms.

$(4x^2+6x+7)+(2x^2-9x+1)$	$(2x^3+5x-3x)-(x^3-8x^2+11)$
$(12m^2+4)+(8m^2+5)$	$(8d^4-9d)-(2d^4+d)+(7d+6)$

4. Simplify each product. Use the distributive property.

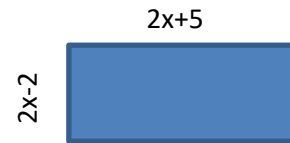
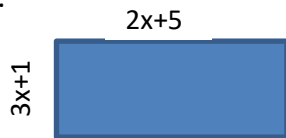
$-4y^2(5y^4-3y^2+2)$	$2x^2y(5x^2y^2+6x^3y-2x+y)$
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5. Multiply each of the following. Simplify completely, and write each answer in standard form.

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

$$(5m+2)(8m-1)$$

Find the area.



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

$$(6x-8)(2x^2+3x+7)$$

$$(x+3)^2$$

$$(r-12)^2$$

$$(x+9)(x-9)$$

$$(3x+7)(3x-7)$$

6. Identify the number set(s) to which each number belongs. (Irrational, Rational, Integers, Whole, Natural Numbers)

$\sqrt{72}$	
$\frac{25}{4}$	
$-\frac{25}{5}$	
$\frac{5}{25}$	
$\frac{34}{2}$	
-6	
0	

7. Simplify each of the following completely.

$\sqrt{2400}$	$4\sqrt{76}$	$3\sqrt{270}$
$4\sqrt{18} - \sqrt{48} + 5\sqrt{8}$	$3\sqrt{700} + 4\sqrt{63}$	$-4\sqrt{6}(2\sqrt{3} - 5\sqrt{10})$

8. Use dimensional analysis to solve each problem below. Show the steps.

One milliliter of food coloring makes enough blue frosting for 10 cupcakes. If you had 2 cups of food coloring, how many blue cupcakes could you frost?

Your car is leaking oil from it's engine at 2 fluid ounces every 6 hours. How many quarts of oil will it leak in one week?

If a month is 4 weeks long and your car can hold 8 quarts of oil at one time, will you have to add more oil at the end of the month? Why or why not?

A dripping shower leaks 1 fluid ounce of water every 20 minutes. How many gallons will it leak in 1 week?

Marching bands march 8 steps each 5 yards and they march 50 steps per minute. If the band marches continuously, how long will it take to march 1 mile?