NAME: _____ **Period**_____

UNIT 4 Review

WARM UP: SIMPLIFY EACH EXPRESSION

1) $12r + 5s – 7t + 11r + 9s – 4r$

2) $8x^2 – 7x + 4x^3 – 2 – 3x^2 + 9x - 4$

#1 – 2: COMBINE LIKE TERMS WORD PROBLEMS:

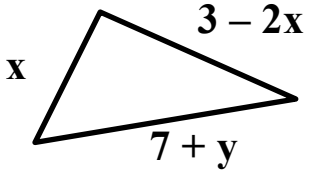
3) **Bob mowed $(2x^2 + 5x – 3)$ yards on Monday, $(4x – 7)$ yards on Tuesday, and $(3x^2 + 10)$ yards on Wednesday.**
   a. How many yards did he mow in the three days?

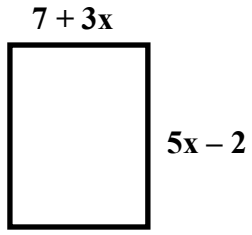
   b. If Bob mowed $14x^2 + 12x – 3$ yards total for the entire week, how many yards did he mow during the rest of the week?

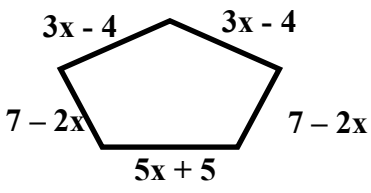
4) **Molly has $(4x + 10)$ dollars and Ron has $(20 – 5x)$ dollars.**
   c. How much money do they have altogether?

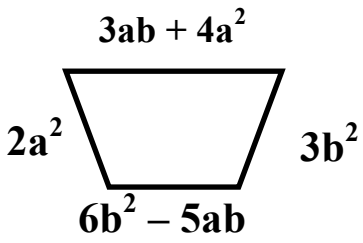
   d. How much more money does Molly have than Ron?

5) **Identify the figure, then find the perimeter of each shape pictured below:**
Hint: Perimeter is the sum of all sides on a figure.





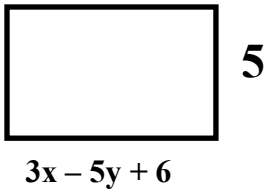




6) FIND THE AREA OF THE GIVEN SHAPES:

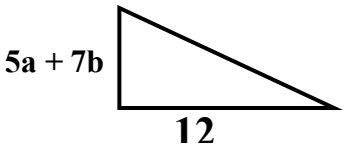
Hint #1: Area of Rectangle = Length * Width,
Hint #2: Area of Triangle = ½ *Base*Height

a. Find area of a rectangle with length of 5 and width of 3x – 5y + 6. (see picture)



b. Find area of a rectangle with width of 7 and length of 6x – 7

c. Find area of a triangle with base of 12 and height of 5a + 7b. (see picture)



d. Find area of a triangle with base of ($6y^2 + 5y – 2$) and height of 8

Use the distributive property to re-write each expression.

7) $-3(2y + 6)$

8) $\frac{2}{3}\left(\frac{4}{5}x - \frac{1}{3}\right)$

9) $(4x + 2)9$

10) $-(9x - 10)$

11) $-12 \div 4(7m + 8)$

12) $4 - 5(3x + 2)$

Rewrite each expression in factored form.

13) $4x + 12$

14) $3y - 18$

15) $-2p + 10$

16) $10x - 6xy$

17) $-8m + 14$

18) $\frac{1}{4}x + \frac{1}{2}$ (Extra Credit)