Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CC Algebra

**Cumulative Review #2.4**

**Show work for all questions for full credit**

**& write your answers on the lines provided!!!**

(*If you feel no work is needed you must explain your reasoning.)*

1. If *A* = 3*x*2 + 5*x* – 6 and *B* = –2*x*2 – 6*x* + 7, then *A* – *B* equals

A. –5*x*2 – 11*x* + 13 C. –5*x*2 – *x* + 1

B. 5*x*2 + 11*x* – 13 D. 5*x*2 – *x* + 1

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Seven less than twice a number is greater than 5 more than the same number. Which integer satisfies this inequality?

 A. 1 C. 12

 B. 2 D. 13

 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Given *f(x) = *

 *g(x) =* $=2f\left(x\right)- \frac{2}{3}$

Find *g(4)*

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Solve for x:

 x – 8 = 10

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. An animal shelter spends $2.35 per day to care for each cat and $5.50 per day to care for each dog. Pat noticed that the shelter spent $89.50 caring for cats and dogs on Wednesday.

1. Write an equation to represent the possible numbers of cats and dogs that could have been at the shelter on Wednesday.

5a. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Pat said that there might have been 8 cats and 14 dogs at the shelter on Wednesday. Are Pat’s numbers possible? Use your equation to justify your answer.

5b. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_