Name_____ Date _____ Period _____

Semester 2 Exam Review **Day 1 Exam questions #1-11**

1. What is the x-coordinate of the point of intersection of these two lines?

   y = -3x – 6

   9x + y = 6

2. What is the product of the binomials?

   (3x -5)(8x + 7)

3. The solution to the system of equations

   $$2x + 3y = p$$
   $$-x + 5y = m$$

   Is the ordered pair (2, k).

   Which is equal to p + m?

4. Which is equivalent to $\sqrt{h^8 z^9}$, where h and z are non-negative numbers?

5. Let f(x) = $3x^2$ – x + 6 and g(x) = -4x + 9. What is f(x) – g(x)?

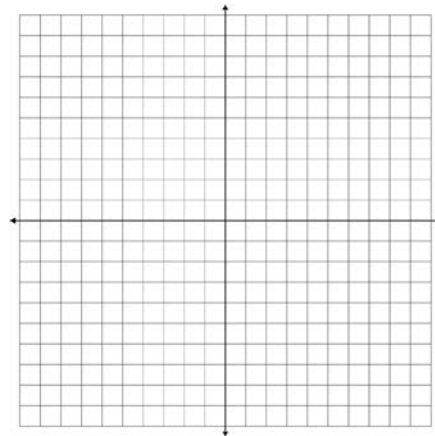6. What number should be added to both sides of the equation to complete the square?

   X^2 – 18x = 30

7. What are the coordinates of the vertex of the parabola defined by f(x) = $3(x – 8)^2$ + 13

8. Graph the system of inequalities

   y > -x + 3

   $y \le x - 5$

In questions 9-11, use the function f(x) = $10x^2$ + 8x

9. Is 5 a common factor of f(x)?

10. Is 2x a common factor of f(x)?

11. Is $2x^2$ a common factor of f(x)

1. What is the x-coordinate of the point of intersection of these two lines?
   $y = -3x -$
   $4x + y = 6$

2. What is the product of the binomials?
   $(3x -5)(6x + 3)$

3. The solution to the system of equations
   $2x + 3y = f$
   $-x + 5y = g$
   Is the ordered pair (2, k).
   Which is equal to f + g?

4. Which is equivalent to $\sqrt{a^{10}b^7}$, where h and z are non-negative numbers?

5. Let $f(x) = 4x^2 - x + 7$ and $g(x) = -7x + 9$. What is $f(x) - g(x)$?

6. What number should be added to both sides of the equation to complete the square?
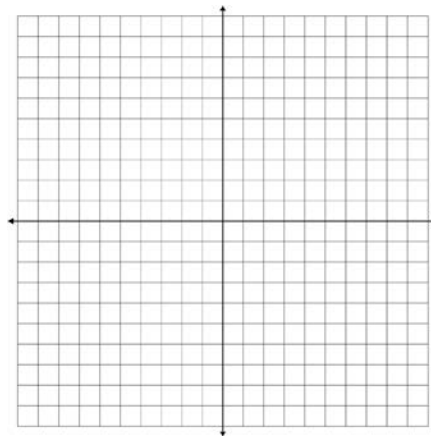 $x^2 - 22x = 33$

7. What are the coordinates of the vertex of the parabola defined by $f(x) = -2(x - 4)^2 + 1$

8. Graph the system of inequalities
   $y < -x + 6$
   $y \geq x - 3$

In questions 9-11, use the function $f(x) = 15x^2 + 18x$

9. Is 5 a common factor of f(x)?

10. Is 3x a common factor of f(x)?

11. Is $3x^2$ a common factor of f(x)?