1 – 5 Multiple Choice. (3 points each)

1. The owner of a dog grooming business has one employee who is paid an hourly rate of $15. The owner estimates his weekly profit using the function $P(x) = 7000 - 15x$. In this function, x represent the number of
    a. days worked per week   b. dogs groomed per week
    c. hours worked per week   d. appointments per week

2. The length of a rectangular garden is $2y - 4$. The width of the garden is $3y - 1$. which of the following expressions could be used to represent the area of this rectangular garden?
    a. $5y - 5$ b. $6y^2 - 14y + 4$
    c. $6y^2 - 5y - 5$ d. $10y - 10$

3. Which of the following numbers is not prime?
    a. 7   b. 23   c. 37   d. 51

4. What is the value of $\left(\frac{1}{4}\right)^0 + 2^{-4}$?
    a. $\frac{1}{16}$ b. $1\frac{1}{8}$ c. $1\frac{1}{16}$ d. $4\frac{1}{16}$

5. The expression $(x - 3)^2$ is equivalent to
    a. $x^2 - 9$ b. $x^2 + 6x + 9$
    c. $x^2 - 6x + 9$ d. $x^2 + 9$

6 – 7 Solve. (3 points each)

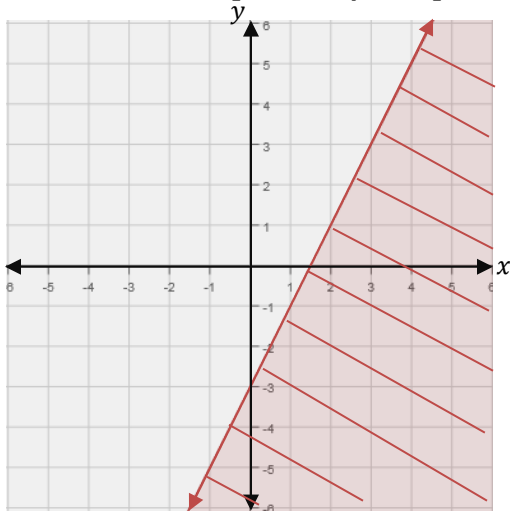6. $0.2x - 3 = x + 1$ 7. $x - 3(2x + 4) = 7x$

8 – 9 Simplify. (4 points each)

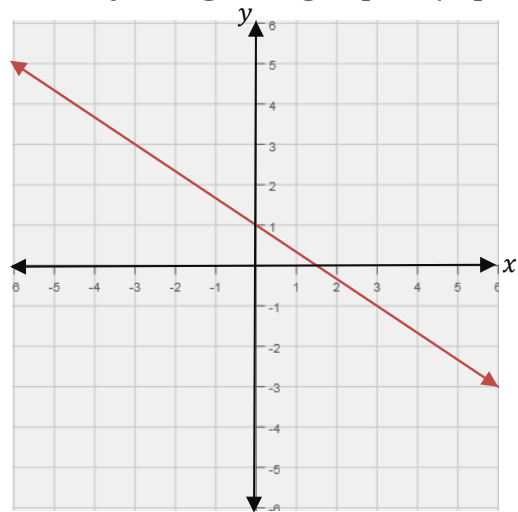8. $(b-3)^2 - (b+2)(b-5)$

9. $(x^2 + 2x - 3)(2x^2 - x + 1)$

10 – 11 Write the equation/inequality represented by the given graph. (3 pts each)

10.

11.

12.   At the Savemore Supermarket, 3 lbs of squash and 2 lbs of eggplant cost $2.85. The cost of 4 lbs of squash and 5 lbs of eggplant is $5.41. What is the cost of one pound of squash, and what is the cost of one pound of eggplant? ***(5 points)***