Name: _____ Class: _____

Equations and Expressions Review Sheet 2

1. Find the value of b that makes the equation true:

$$10 = 3(b + 2)$$

2. The price of an item increased by 40.5% over the past decade. If the price of item 10 years ago was p, create an expression for the price of the item today.

3. Find the expression if $0.75x - 1.4$ is subtracted from $9 - 2x$.

4. Chaz bought gift cards for family and friends. He bought two Starbucks gift cards for $25 each and 7 equally priced Amazon gift cards, spending $330 in total for all the gift cards. Create and solve an equation to find the cost of each Amazon gift card.

5. Jed took a cab to the airport. The cab charged a $1.50 initial fee and $2.50 per mile. If Jed was charged $21.50, how far was his trip to the airport. Create and solve an equation.

6. Mr. and Mrs. Annello took their 3 children to a Broadway show. They spent a total of $230, which included $30 on snacks at the concession stand. Create and solve an equation to find the cost of each ticket to the show.

7. Simplify: $\frac{2}{5}(75x - 2) + 3x$

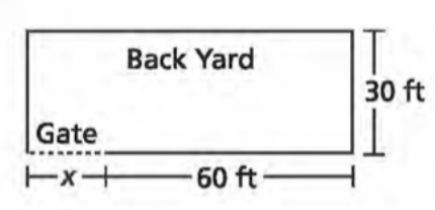
8. Find the value of x given the equation:

$$9 - x + 3x = 8x + 4$$

9. Find the value of a that makes the equation true:

$$8(a - 4) - 2 = 18$$

10. Suppose the perimeter of the figure below is 204 feet. Find the value of x:



11. A cellphone plan charged $50 per month and $3.50 for each additional gigabyte. If Shawna was charged $76.25 last month, how many gigabytes did she use? Create and solve an equation.

12. Find the product of 8 and $(\frac{5}{2}n - 2)$.

13. Simplify the expression $8x + 7 - \frac{2}{5}x + \frac{1}{2}$

14. A rectangular swimming pool has a length that is 7 less than twice its width. If the perimeter of the swimming pool is 300 feet, create a diagram and solve an equation to find the length.

15. Solve the equation: $2(x - 3) - 3x = 2(3x + 8)$