Homework # _____ Writing & Solving Equations from Word Problems

1. For the following problems, 1) Define your variable ("Let x =..."). 2) Write an equation and solve.

1) Sylvie’s age is 5 years less than half Katie’s age. If Sylvie is 11 years old, what is Katie’s age?

2) Mary and Beth are using leather to make bracelets. Mary has y inches of leather. Beth has 7 more inches of leather than Mary has. They have a combined total of 77 inches of leather. What is the value of y?

3) Charlie has a $30 smoothie gift card. Each time he uses the card to buy a smoothie, $2 is deducted from his card. If the balance on his card toady is $12, how many smoothies has he purchased with the card?

4) For each babysitting job, Anna charges $2.50 for bus fare plus $8 per hour she works. She charged $30.50 for her last babysitting job. How many hours did she babysit for her last babysitting job?
II. 1) Define your variable ("Let \( x = \ldots \)). 2) Write an equation OR expression and solve.

5) Julio bought a stereo that cost $412 and a CD storage case that cost \( x \) dollars. He paid the clerk $500 in cash and received $3 in change. Assuming there was no tax, how much did the CD storage case cost?

6) The number of birds that Vikram saw on a nature walk is 1 less than \( \frac{4}{5} \) the number of birds that Shaya saw. Shaya saw a total of 10 birds. How many birds did Vikram see?

7) Yolanda has $38 in a bank account. She wants to make two equal deposits so that her account will have a balance of $100. How much money does Yolanda need to deposit each time?

8) Jeremy has 245 stamps. Max has 35 fewer stamps than Jeremy has. How many stamps does Max have?

9) Preston bought a turkey for $34.10. The turkey cost $1.55 per pound. How many pounds did the turkey that Preston bought weigh?