CH3, L3 – WRITING/IDENTIFYING EQUATIONS FROM CONTEXT

Big Idea:

Partner Practice: *(Low Difficulty)*

1. Write an equation that could be used to determine the missing value in each statement:

    a. Twice a number plus five is thirty.

        Equation: _____

    b. Eight less than a third of a number is the sum of that number and one.

        Equation: _____

    c. Three is twenty-one, divided by the sum of a number and five

        Equation: _____

    d. Five less than three times a number is forty-six

        Equation: _____

2. Eric had $197 in his savings account before he was paid his weekely salary. His current savings balance is $429. If Eric deposits all of his earnings, then how much money does he earn each week?

    a. 197 + 429 = n

    b. 197 + n = 429

    c. 197n = 429

    d. None of the above

3. Justify your answer to number 2.

1. Context is annotated for key information and meaning
2. Equation is written to reflect the context and relationships described
3. Variable used in equation is defined in context

_____
_____
_____
_____

Partner Practice: *(Medium Difficulty)*

4. A cell phone company charges a monthly rate of $12.95 and $0.25 a minute per call. The bill for m minutes is $21.20. Write an equation that could be used to solve for the number of minutes used.

    Equation: _____

5. Robbie and Yesenia are both saving money. Robbie starts with $60 and is saving $7 per week. Yesenia starts with $120 and is saving $5 per week. Write an equation that could be used to determine how long it will take for both of them to have the same amount of money.

    Equation: _____

6. Jake and Gloria are running on the track team. Gloria can run twice as many miles as Jake. Write an equation that can be used to determine how far Jake runs if they run a combined distance of 12 miles.

    Equation: _____

7. Linda was selling tickets for the school play. She sold 10 more adult tickets than children tickets and she sold twice as many senior tickets as children tickets. In total, she sold 220 tickets. Write an equation to could be used to determine the number of children's tickets sold.

    Equation: _____

8. Write an equation that could be used to determine the missing value in the statement:

1. Context is annotated for key information and meaning
2. Equation is written to reflect the context and relationships described
3. Variable used in equation is defined in context

"45 is half of the sum of a number and 5"

Equation: _____

9. David counts the quarters in his change jar. He has 24 more quarters than his brother Rob, and together they have 92 quarters. If *r* is the number of quarters Rob has, which equation represents the number of quarters that David and Rob have in all?

   A. $r + 24 = 92$
   B. $2r - 24 = 92$
   C. $r + 92 = 2$
   D. $2r + 24 = 92$

Partner Practice: *(Hard Difficulty)*

10. Marcelis takes a taxi to the airport. The taxi charges $2 per mile and an initial fee of $1.50. How far away from the airport does she live if the total cost of her taxi ride was $27.50?

Equation: _____

1. Context is annotated for key information and meaning
2. Equation is written to reflect the context and relationships described
3. Variable used in equation is defined in context

11. Two containers are leaking water at different rates. One container has 100 gallons in it and is leaking out 3 gallons per minute. The other container has 150 gallons and is leaking out 5 gallons per minute. How many minutes will pass before they have the same amount of fluid? How much fluid will be in each tank?

Equation 1: _____

Equation 2: _____

1. Context is annotated for key information and meaning
2. Equation is written to reflect the context and relationships described
3. Variable used in equation is defined in context