UNIT 1 LESSON 3 – CREATING LINEAR EQUATIONS

Equation: math sentence that uses an equal sign (=) to show two quantities are equal.

Quantity: something that can be compared by assigning a numerical value.

Linear Equation: $ax + b = c$
a, b, c are real numbers, x is the variable

Solution: the value that makes the equation true.

STEPS TO CREATING EQUATIONS

Step 1) Read the problem

Step 2) Make a list of known quantities and Assign a variable to what you are trying to find

Step 3) Create an equation with known quantities and variable

Step 4) Solve the equation

Step 5) Interpret the solution and convert units when necessary

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***Some answers might need to be converted to a different unit rate (for example change minutes to hours).

EX #1) When 6 is added to four times a number, the result is 50. Find the number.

x = number   4x + 6 = 50 (equation)

4 times a number = 4x   4x = 44

                                                  x = 11

EX #2) On an algebra test, the highest grade was 42 points higher than the lowest grade. The sum of the two grades was 138. Find the lowest grade.

x = lowest grade   x + x + 42 = 138

x + 42 = highest grade   2x + 42 = 138

                                                  2x = 96

                                                  x = 48

YOU TRY!!

EX #3) Brianna has saved $600 to buy a new TV. If the TV she wants costs $1,800 and she saves $20 a week, how many years will it take her to buy the TV?