Objectives:

- Write word equations as mathematical equations
- Solve one step linear equations with rational coefficients

(A) Lesson Context

Mr Santowski likes to pay attention to the stock market, because he has invested some money for his eventual retirement and for his children's college fund. Sometimes, he needs to make changes in his portfolio. Recall that my investment portfolio has the following funds:

Stock
Exxon Mobile (XOM)
Apple (AAPL)
Proctor & Gamble (PG)
Panasonic Corp (PC)

So with this context, today's KEY point ➔ In order to analyze my portfolio from the perspective of MAKING CHANGES IN MY PORTFOLIO, I need to understand a number of key mathematical concepts that we will address in this classes.

In order to work with today's lesson, we will define our variables in the following manner:

Variable	Stock
Let A =	The number of Exxon Mobile shares I currently have
Let B =	The number of Apple shares I currently have
Let C =	The number of Proctor & Gamble shares I currently have
Let D =	The number of Panasonic Corp shares I currently have

Today, we will work with EQUATIONS, so let's start with interpreting some equations:

Ex. 1   From the following word equations, write an algebraic equations

(a) I double the number of EXXON shares, so now I have 10 shares.
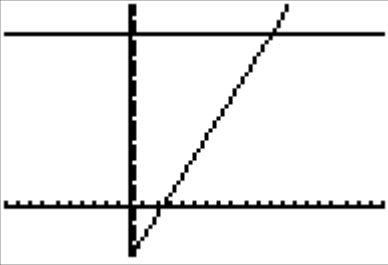
(b) After tripling the number of APPLE shares and selling 20, I still have 100 shares left.

(c) After adding 20 shares of PROCTOR & GAMBLE to my current amount, I then take a quarter of this portfolio. I then have 160 shares of PG remaining.

Ex 2. Now, we will solve and verify some linear equations together:

6x = 0	x/2 = 5
3 = x – 6	-5 + x = -4
7x = 35	3x = 36
-10 + 4x = 34	6 + 7x = 48
$\dfrac{5}{7}x + 10 = \dfrac{110}{7}$	$x - \dfrac{2}{3} = \dfrac{31}{3}$
-2x + 4 + 6x = -16	x – 2 + 6x = -2
4x + 3 = 6x + 9	4(-5x – 9) = -276

Then after solving a linear equation, we will want to check or verify the equation

(1) We can do this algebraically by substitution	(2) We can do it on a graphing calculator by graphing linear equations
EX: -10 + 4x = 34 -10 + 4x + 10 = 34 + 10 4x = 44 X = 11 Verify: -10 + 4(11) = 34 -10 + 44 = 34 34 = 34	

HOMEWORK:

See attached worksheets