Systems of Linea Equations (SLE04.en) (10/03/2018) (by Mr. López(c): <u>nyc.hse.rlopez@gmail.com</u>

You need to go over those problems using the guideline about "how to solve word problems":

https://ergosumus.wordpress.com/2018/06/11/word-problems/

even though the example in that guideline is about combined rates word problems. Most importantly, I need to:

1) tell apart what is relevant from what isn't (underline the phrases right on the sheet)

- 2) point out possible "red herrings" swimming around in the problem
- 3) translate the vernacular to algebraic statements (equations or inequalities)
- 4) solve §3 by using the PERMDAS rule

5) think about your answer to make sure it makes sense.

Examples of SLEs types of word problems:

i) In preparation for a family party, Laura takes advantage of a sale at the store. They had 1 lb bags of cherries for \$1.50 and of bananas for just \$1.00. Laura pays a total of \$12 and walks away with bags weighing 10 lbs. How many bags of cherries and bananas did she buy?

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ii) Jimmy has so far a total of 22 coins consisting of quarters and dimes. The total value of the coins is \$4.15. How many quarters and nickels does he have? If he needs to save a total of \$8.65, in how many different ways could he combine quarters and nickels in order to reach his goal? Graph the relationship between quarters and dimes.

iii) At the beginning of the school year, teacher Kim buys sets of 1 blue pen and two regular pencils for each student in his two classes comprising 36 students, as well as multi-color pens for herself, which she uses for grading in the following way: she underlines correct, salient statements in black, those needing attention and improvement in yellow and those plain wrong ones she crosses through with red ink. The price of those fancy multi-color pens, which now also include a blue point, increased to \$5.50. The regular blue pens students get cost \$0.35 each and the pencils cost \$0.15. Ms Kim also buys some spare student sets. Teacher ends up paying \$45.75 for a total of 45 items. How many student sets and pens for himself did the teacher buy? How many extra student sets were bought?