ALGEBRA I – CLASS 9B

April 28, 2020

Dear Class,

Welcome to our first class "reunion" since our Pesach vacation.

We are geographically very, very separated – from the very Westernmost tip of Coney Island, a few feet from the ocean, (Sea Gate – Hello! Boruch Waldman) stretching to the Northernmost regions of Queens (Jamaica – Hi! Yosef Barukhov) and through the Queens Midtown tunnel or over the Williamsburg Bridge to the Lower East Side (Hi! No Ro – I hope you and your whole family have fully recovered from their battle with Covid-19 Corona Virus and all is well) and back through the Brooklyn Battery Tunnel to the glacial ridge at the Western edge of Boro Park (Hello! Yitzchak Leviyev) and then back to flat coastal plain of Kensington and Midwood (a.k.a. Flatbush.)

However, fortunately we will be re-united by that marvelous invention that HaKadosh Boruch Hu inspired Alexander Graham Bell to invent in 1876 - **THE TELEPHONE.**

Since this is a Math lesson and not a geography or history lesson, let's get started.

We really accomplished a lot this year, to the point that I am sure that many of you are perhaps disappointed that they cancelled the Regents and you did not have a chance to show off your skills that you have gained. (Was that applause or boo's that I just heard?)

We will be continuing with Booklet #7 Modeling, and then on to Booklet #8 Quadratic Modeling (Booklet #9 on Regressions we have done already).

Today, we will be working on June 2019, problem #37 (a 6 credit problem) on page 69 of the booklet. (work has been attached below)

In addition, choose one of following 3 examples:
(work has been attached below)
January 2018 #3 on page 49
January 2018 #35 page 51
June 2018 #6 on page 52

We will be reviewing the main points of the homework at our next conversation.

Work may be returned in via any of the following:

Email mathi.mirrer@gmail.com
Fax 718 375 6342
Mail Mirrer Mesivta High School 1791-5 Ocean Parkway Brooklyn NY 11223

Please indicate how you would like your work to be returned.

PLEASE PICK UP BOOKLET FROM YESHIVAH. PICKUP IS THIS FRIDAY 12:45 -3:00

ALGEBRA I

It is urgent that you submit the work in a timely manner, and in the way required, as all of your work will be kept on record to supply NY State as verification that you have fulfilled both your class requirements and (substitute) Regents requirement.

Looking forward to a productive final semester to the school year.

If you have any questions on the work, you can always call me at home. 718-375-9847 or 718-404-8422 between 4:00- 10:00 PM.

Our conference call number is 917-932-8638, Thursday 3:45 – 4:05 P.M.

Looking forward to greeting all of you.

Rabbi Isralewitz

37 When visiting friends in a state that has no sales tax, two families went to a fast-food restaurant for lunch. The Browns bought 4 cheeseburgers and 3 medium fries for $16.53. The Greens bought 5 cheeseburgers and 4 medium fries for $21.11.

Using c for the cost of a cheeseburger and f for the cost of medium fries, write a system of equations that models this situation.

The Greens said that since their bill was $21.11, each cheeseburger must cost $2.49 and each order of medium fries must cost $2.87 each. Are they correct? Justify your answer.

Using your equations, algebraically determine both the cost of one cheeseburger and the cost of one order of medium fries.

3 Alicia purchased H half-gallons of ice cream for \$3.50 each and P packages of ice cream cones for \$2.50 each. She purchased 14 items and spent \$43. Which system of equations could be used to determine how many of each item Alicia purchased?

(1) $3.50H + 2.50P = 43$
  $H + P = 14$

(3) $3.50H + 2.50P = 14$
  $H + P = 43$

(2) $3.50P + 2.50H = 43$
  $P + H = 14$

(4) $3.50P + 2.50H = 14$
  $P + H = 43$

35 The drama club is running a lemonade stand to raise money for its new production. A local grocery store donated cans of lemonade and bottles of water. Cans of lemonade sell for \$2 each and bottles of water sell for \$1.50 each. The club needs to raise at least \$500 to cover the cost of renting costumes. The students can accept a maximum of 360 cans and bottles.

Write a system of inequalities that can be used to represent this situation.

The club sells 144 cans of lemonade. What is the *least* number of bottles of water that must be sold to cover the cost of renting costumes? Justify your answer.

6 Joy wants to buy strawberries and raspberries to bring to a party. Strawberries cost \$1.60 per pound and raspberries cost \$1.75 per pound. If she only has \$10 to spend on berries, which inequality represents the situation where she buys x pounds of strawberries and y pounds of raspberries?

(1) $1.60x + 1.75y \leq 10$ (3) $1.75x + 1.60y \leq 10$

(2) $1.60x + 1.75y \geq 10$ (4) $1.75x + 1.60y \geq 10$