

Hello everyone, and welcome to our weekly class reunion (#3).

I was extremely impressed by how thoroughly all of you did your work, to the extent that I actually felt bad that they cancelled your Algebra II Regents! It's so, so obvious that almost all of you would have "aced it" on your Regents, bringing home marks in the uppers 80's and 90's.

However, I would imagine that the relief from the pressure of exam taking is very welcome, and most importantly it gives you much more free time to devote to your LEARNING (and **that's** what Klal Yisroel needs now, more than ever: the zchus of your LIMUD HATORAH.)

A very special SHOUT OUT goes to Benjy Flohr, Shlomie Shapiro, Avromi Katz, Chaim Osher Hershfang, Ephraim Borenstein and Donny Bandarizadeh for going "above and beyond the call of duty" with your extra detailed responses.

For this week's assignment: (Booklet #3)

June 2019

Problems 4, 6, and 34

We will be having our conference call, the same as last week at 917-932-8638 from 4:15 - 4:35 PM. Looking forward to hearing from all of you.

Please remember to submit all work in a timely manner – similar to last week's.

Work may be returned in via any of the following:

Email mathi.mirrer@gmail.com

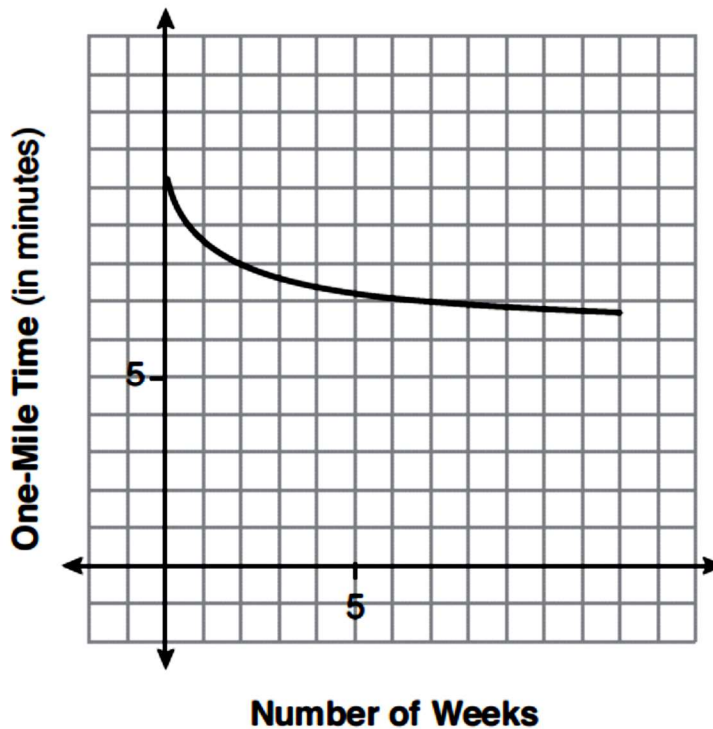
Fax 718 375 6342

Mail Mirrer Mesivta High School 1791-5 Ocean Parkway Brooklyn NY 11223

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

JUNE 2019

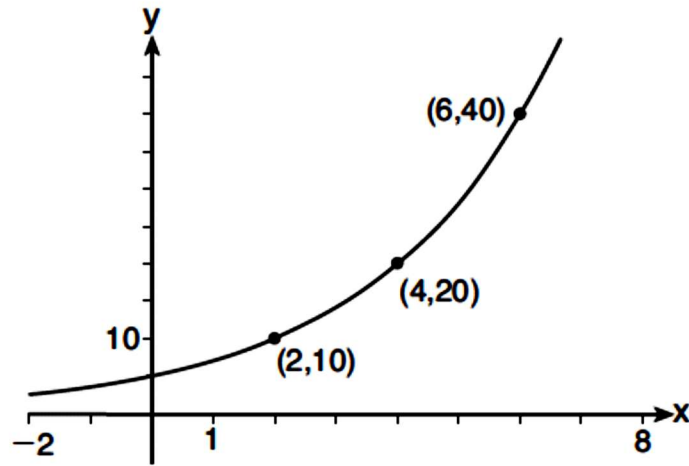
- 4 Irma initially ran one mile in over ten minutes. She then began a training program to reduce her one-mile time. She recorded her one-mile time once a week for twelve consecutive weeks, as modeled in the graph below.



Which statement regarding Irma's one-mile training program is correct?

- (1) Her one-mile speed increased as the number of weeks increased.
- (2) Her one-mile speed decreased as the number of weeks increased.
- (3) If the trend continues, she will run under a six-minute mile by week thirteen.
- (4) She reduced her one-mile time the most between weeks ten and twelve.

6 The graph of $y = f(x)$ is shown below.



Which expression defines $f(x)$?

- | | |
|--------------|-------------------------------------|
| (1) $2x$ | (3) $5\left(2^{\frac{x}{2}}\right)$ |
| (2) $5(2^x)$ | (4) $5(2^{2x})$ |

34 The half-life of a radioactive substance is 15 years.

Write an equation that can be used to determine the amount, $s(t)$, of 200 grams of this substance that remains after t years.

Determine algebraically, to the *nearest year*, how long it will take for $\frac{1}{10}$ of this substance to remain.