

## Algebra II

Hello, everyone and welcome to class "reunion" #6.

I am sorry we had some technical problems with our teleconference line. Hopefully, it will be straightened out by next time.

I just can't help but express great pride in the students who are consistently, week-in and week-out, producing ultra high quality "HONORS" work in Algebra II. Special acknowledgement must very deservedly be given to: Chaim Asher Hershfang, Shimshi Zelikovitz, Yitzzy Pearl, Ephraim Borenstein, and Yosef Boruch Geffner for truly outstanding work. Your dedication to detail is simply amazing.

**Our assignment for this week:**

**January 2018 number 8**

**June 2018, number 18 and number 24**

### IMPORTANT REMINDERS:

1. When answering multiple choice questions, you must indicate in detail how you arrived at your answers.
2. Please remember, as per Common Core requirements, all alternate solutions are fully acceptable if properly and fully documented.
3. **Please make sure that each and every page submitted has**
  - a) **your full name**
  - b) **your class**
  - c) **the date of the assignment.**
4. We will be having our conference call, the same as previous weeks at 917-932-8638 from 4:15 - 4:35 PM. Looking forward to hearing from all of you.
5. **Work may be returned in via any of the following:**

Email [mathi.mirrer@gmail.com](mailto: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.**

Keep up the great work!

Any questions, please call me any day between 4:00 - 10:00 PM at 718-404-8422.

**JANUARY 2018**

8 For a given time,  $x$ , in seconds, an electric current,  $y$ , can be represented by  $y = 2.5(1 - 2.7^{-.10x})$ . Which equation is *not* equivalent?

(1)  $y = 2.5 - 2.5(2.7^{-.10x})$

(2)  $y = 2.5 - 2.5((2.7^2)^{-.05x})$

(3)  $y = 2.5 - 2.5\left(\frac{1}{2.7^{.10x}}\right)$

(4)  $y = 2.5 - 2.5(2.7^{-2})(2.7^{.05x})$

**JUNE 2018**

18 The half-life of iodine-131 is 8 days. The percent of the isotope left

in the body  $d$  days after being introduced is  $I = 100\left(\frac{1}{2}\right)^{\frac{d}{8}}$ .

When this equation is written in terms of the number  $e$ , the base of the natural logarithm, it is equivalent to  $I = 100e^{kd}$ . What is the approximate value of the constant,  $k$ ?

(1)  $-0.087$

(3)  $-11.542$

(2)  $0.087$

(4)  $11.542$

NAME: \_\_\_\_\_ CLASS \_\_\_\_\_ DATE \_\_\_\_\_

## JUNE 2018

24 A manufacturing plant produces two different-sized containers of peanuts. One container weighs  $x$  ounces and the other weighs  $y$  pounds. If a gift set can hold one of each size container, which expression represents the number of gift sets needed to hold 124 ounces?

(1)  $\frac{124}{16x + y}$

(3)  $\frac{124}{x + 16y}$

(2)  $\frac{x + 16y}{124}$

(4)  $\frac{16x + y}{124}$