

Algebra II

Hello, everyone and welcome to class "reunion" #5.

I hope you all had a great Shvuus!

I find it very encouraging that you really appreciate and find interesting and challenging the "real life" Math problems found in the Algebra II curriculum.

Special SHOUT OUTS to Chaim Asher Hershfang, Avromi Katz, Shloimy Shapiro, Yitzzy Pearl and Benny Flohr for the extra special meticulous work, as well as giving the encouragement every Math teacher needs to carry on under very unusual circumstances. Thank you to all of you!

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

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.

This week's assignment:

January 2017 – problem 26 and problem 28

August 2017 – problem 10

NAME: _____

JANUARY 2017

- 26** An orange-juice processing plant receives a truckload of oranges. The quality control team randomly chooses three pails of oranges, each containing 50 oranges, from the truckload. Identify the sample and the population in the given scenario.

State *one* conclusion that the quality control team could make about the population if 5% of the sample was found to be unsatisfactory.

- 28** The function $M(t)$ represents the mass of radium over time, t , in years.

$$M(t) = 100e^{\frac{\ln\left(\frac{1}{2}\right)t}{1590}}$$

Determine if the function $M(t)$ represents growth or decay. Explain your reasoning.

AUGUST 2017

- 10** Iridium-192 is an isotope of iridium and has a half-life of 73.83 days. If a laboratory experiment begins with 100 grams of Iridium-192, the number of grams, A , of Iridium-192 present after t days would be

$$A = 100 \left(\frac{1}{2} \right)^{\frac{t}{73.83}}.$$

Which equation approximates the amount of Iridium-192 present after t days?

- (1) $A = 100 \left(\frac{73.83}{2} \right)^t$ (3) $A = 100(0.990656)^t$
- (2) $A = 100 \left(\frac{1}{147.66} \right)^t$ (4) $A = 100(0.116381)^t$