Algebra II

Hello, everyone and welcome to our final class "reunion" for this school year

While this school year has had its full share of surprises (to put it mildly), one thing has been very consistent: Outstanding Math work by a really dedicated and highly motivated group of Math students,

I want to take this opportunity to give special thanks (in alphabetical order) to Ephraim Borenstein, Yossi Gold, Chaim Asher Hershfang, Avrumi Katz, Yitzchok Odes, Yitzy Pearl, Nosson Schloss, Shloimie Shapiro and Shimshon Zeikovitz for their day-in and day-out consistently superior Math work and dedication.

In general this was a "dream" class that any Math teacher would truly enjoy teaching.

As for your marks on the course, you will be receiving a numerical grade on your report card and also a "REGENTS REPLACEMENT" grade of A,B,C,D, or F. A+ indicates HONORS.

The best part is that this is not really a permanent parting of ways. B'Ezras Hashem we will be together for English 11A Common Core English. Looking forward to seeing you then.

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.

Any questions, please call me any day between 4:00 - 10:00 PM at 718-404-8422.
Keep up the great work!

NAME:_____CLASS_____DATE_____

Our assignment for this week:
June 2017, number 15, 22 and 24
August 2017, number 10

JUNE 2017

15 Based on climate data that have been collected in Bar Harbor, Maine, the average monthly temperature, in degrees F, can be modeled by the equation $B(x) = 23.914\sin(0.508x - 2.116) + 55.300$. The same governmental agency collected average monthly temperature data for Phoenix, Arizona, and found the temperatures could be modeled by the equation $P(x) = 20.238\sin(0.525x - 2.148) + 86.729$.

Which statement can *not* be concluded based on the average monthly temperature models x months after starting data collection?

(1) The average monthly temperature variation is more in Bar Harbor than in Phoenix.

(2) The midline average monthly temperature for Bar Harbor is lower than the midline temperature for Phoenix.

(3) The maximum average monthly temperature for Bar Harbor is 79° F, to the nearest degree.

(4) The minimum average monthly temperature for Phoenix is 20° F, to the nearest degree.

NAME:_____CLASS_____DATE_____

JUNE 2017

22 Mallory wants to buy a new window air conditioning unit. The cost for the unit is \$329.99. If she plans to run the unit three months out of the year for an annual operating cost of \$108.78, which function models the cost per year over the lifetime of the unit, $C(n)$, in terms of the number of years, n, that she owns the air conditioner?

(1) $C(n) = 329.99 + 108.78n$

(2) $C(n) = 329.99 + 326.34n$

(3) $C(n) = \dfrac{329.99 + 108.78n}{n}$

(4) $C(n) = \dfrac{329.99 + 326.34n}{n}$

NAME:_____CLASS_____DATE_____

JUNE 2017

24 Jasmine decides to put \$100 in a savings account each month. The account pays 3% annual interest, compounded monthly. How much money, S, will Jasmine have after one year?

(1) $S = 100(1.03)^{12}$

(2) $S = \dfrac{100 - 100(1.0025)^{12}}{1 - 1.0025}$

(3) $S = 100(1.0025)^{12}$

(4) $S = \dfrac{100 - 100(1.03)^{12}}{1 - 1.03}$

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) $A = 100\left(\dfrac{73.83}{2}\right)^t$

(2) $A = 100\left(\dfrac{1}{147.66}\right)^t$

(3) $A = 100(0.990656)^t$

(4) $A = 100(0.116381)^t$