"Offering the King Advice"

For each of the plans on the cards, work cooperatively and share the clues with your group. Then follow the directions below to help solve the questions for each puzzle. Start with the Queen's Plan…

The Queen's Plan

1. Make a table of the first 5 squares/days of the plan
2. On your TI-84 graphing calculator, hit ⑤ this will take you to the list editor
3. Next, enter your values for The Queen's Plan in L1 and L2
4. Then, press ☒ to take you to the plot the data from your lists
5. On Plot 1 press and then make sure your plot is ON, Scatter plot, L1 is X and L2 is Y and you choose the first mark—the open square
6. Press ♦ and if you cannot see your plot press ❑ ✹ to see the data plotted
7. Now use the basic form of the exponential equation Y= (start value)(growth rate)^x to try to fit the graph. Remember to move the graph right or left you will need to modify the exponent.
8. Press ☐ and enter the equation you want to try then press ♦ if this is the correct equation it will hit through all of your plotted points, if not press ☐ and try again

   First attempt at the equation _____ result_____

   Second attempt at equation_____result_____

   Third attempt at the equation _____result_____

   The correct equation is…_____

9. Now that you have an equation we can use the list editor to complete the data list
10. Press ⑤ and move until your cursor is on top of the L1
11. Now press ☒⑤ and arrow over to the OPS menu and choose #5: seq()
12. You will see ***seq(*** at the bottom of the list editor window. You need to fill in the criteria so that the sequence commend will fill L1 for you.
    seq(expression, variable, min value, max value, increment)

    So for The Queen's Plan enter

    seq(X, X, 1, 16, 1) and then press
13. Now, move your cursor so that L2 is highlighted.

14. Next, you are going to enter your equation that fit the graph replacing x with L1

15. So type in 🕘⭘🕛⦿ꩡ⭘then press ⍓⑤ to get the list names and choose L1 then press 🕒🕘⦿☍ and L2 will be filled for all 16 days

16. Now you can use the sum command to find the total amount of rice the peasant will receive after all the days on The Queen’s Plan

17. Press ⍓⌘ then ⍓⑤ and arrow over to the MATH menu and choose option #5: ***sum()***

18. sum(will show in the main window and now we just need to select the list we want to sum

19. Pr**ess** ⍓⑤ and choose L2 and then press ☍ and you will have the total rice for the Queen’s Plan

REPEAT this process for the other three plans, but remember they may not all be exponential.
Good Luck and don’t forget to give a complete comparison of the plans before you are through and show all your work and explanations in your notebook.