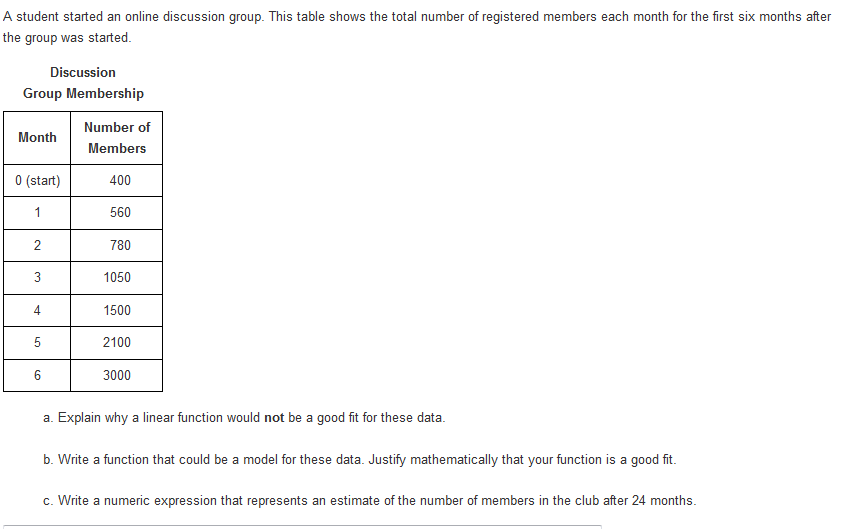
**Redemption Homework – PARCC Review** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A student started an online discussion group. This table shows the number of registered members each month for the first sixth months after the group was started.

**

**Part A:** Would a linear function be a good fit for these data? Explain why or why not.

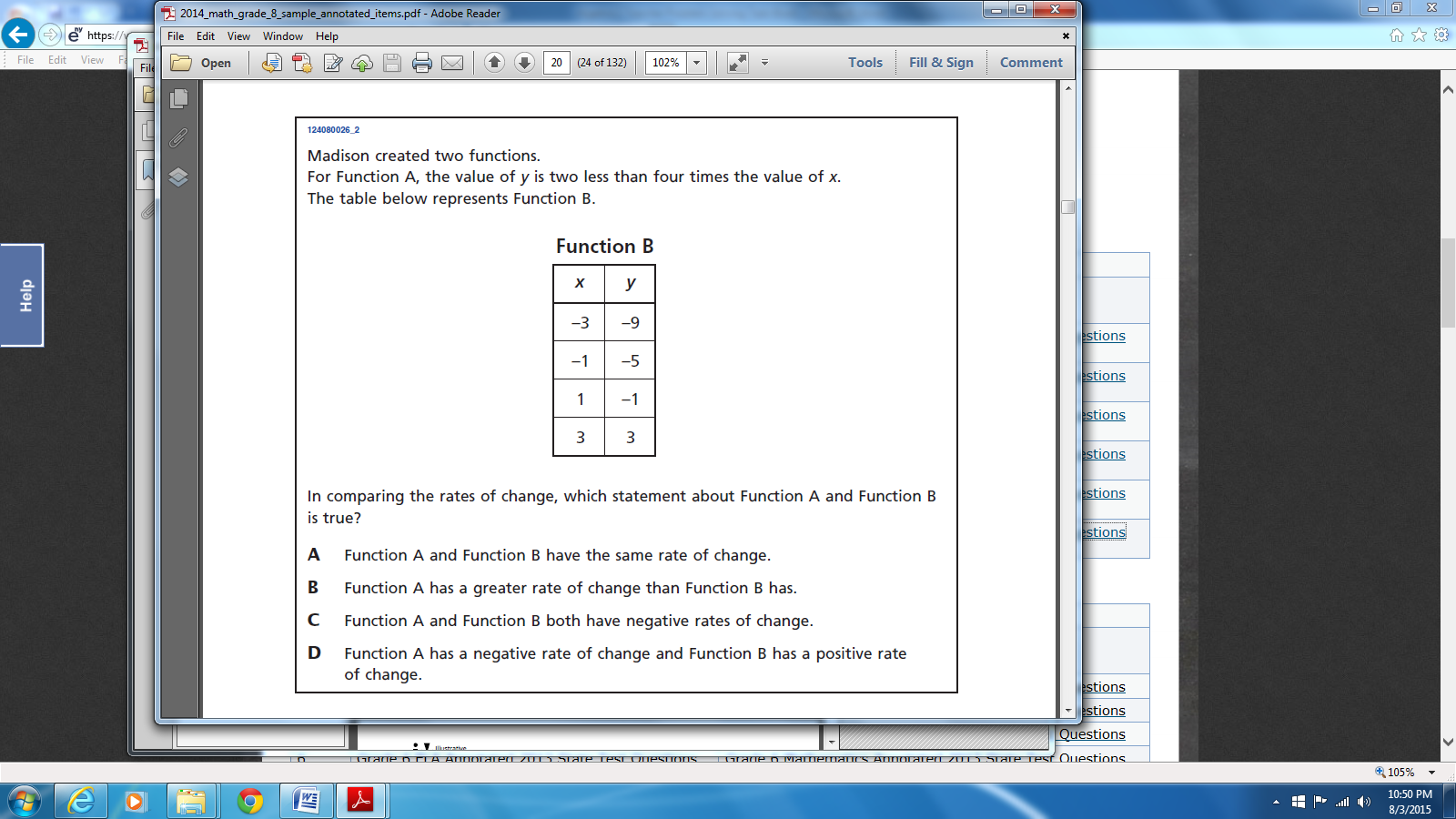
**Part B:** Write a function that could be a model for these data. Justify mathematically that your function is a good fit.

**Part C:** Estimate the number of members in the club after 24 months. Explain how you got your answer.

1. Madison created two functions.

For Function A, the value of is two less than four times the value of .

The table below represents Function B.



In comparing the rates of change, which statement about Function A and Function B is true?

[a] Function A and Function B have the same rate of change

[b] Function A has a greater rate of change than Function B has.

[c] Function A and Function B both have negative rates of change

[d] Function A has a negative rate of change and Function B has a positive rate of

change.

1. The value, , of an investment is given by the function , where is the number of years since 1995 and is measured in thousands of dollars. Which equation indicates that the investment had a value of $8,000 in 2005?

[a] [c]

[b] [d]

1. A linear function has these values.

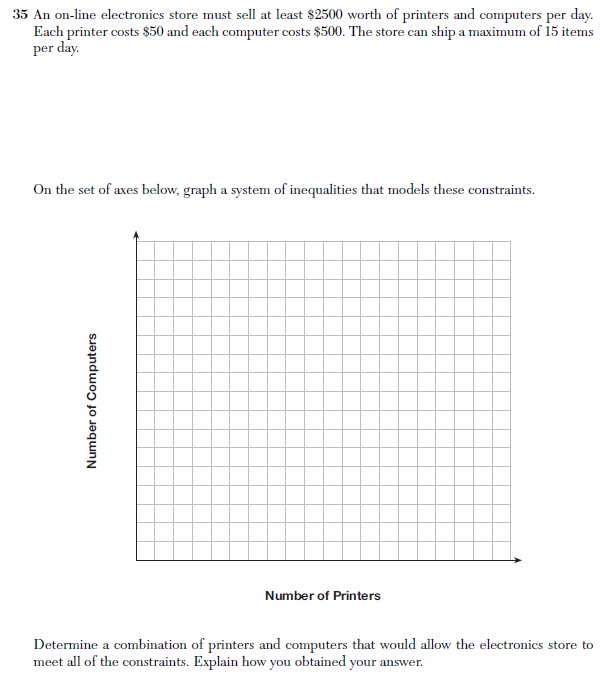
What is the value of

[a] 11 [c] 17

[b] 14 [d] 20

1. An online electronics store must sell at least $2500 worth of printers and computers per day. Each printer costs $50 and each computer costs $500. The store can ship a maximum of 15 items per day.

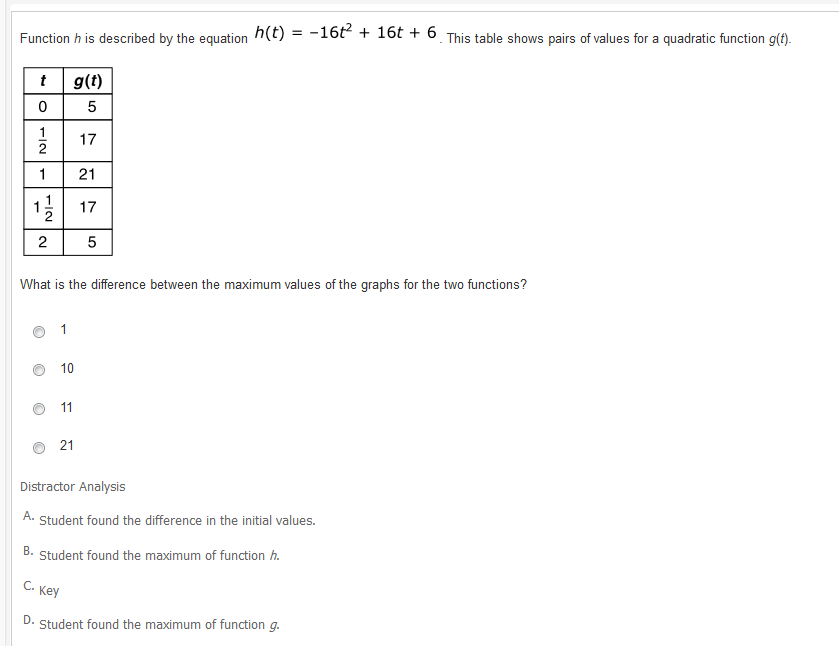
**Part A:** On the axes below, graph a system of inequalities that models these constraints.



**Part B:** Determine a combination of printers and computers that would allow the electronics store to meet all of the constraints. Explain how you obtained your answer.

1. Function is described by the equation

The table shows pairs of values for a quadratic function



What is the difference between the maximum values of the graphs for the two functions?

[a] 1

[b] 10

[c] 11

[d] 21