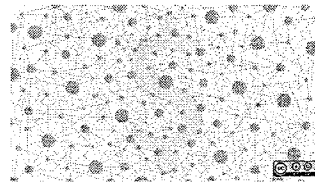


Name: \_\_\_\_\_

## Modeling Data | 8.6

Ready, Set, Go!



Ready

Topic: Finding distance and averages.

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Use the number line below to answer the questions.



1. How far away is each of the points on the number line from *point A*?  
(You need to list each point and its distance from *point A*.)
2. What is the total of all the distances from *point A* that you found in exercise number one?
3. What is the average distance that any of the given *points B through G* are from *point A*?
4. Which point on the number line is located the average distance away from *point A*?
5. Label another location on the number line that is the average distance away from *point A*.  
(Call it *point X*)
6. How far away is each of the points on the number line from *point D*?  
(You need to list each point and its distance from *point D*.)
7. What is the total of all the distances from *point D* that you found in exercise number six?
8. What is the average distance that any of the six other points are from *point D*?
9. Is there a point on the number line located the average distance away from *point D*?
10. Label another location on the number line that is the average distance away from *point D*?  
(Call it *point Y*)

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Name:

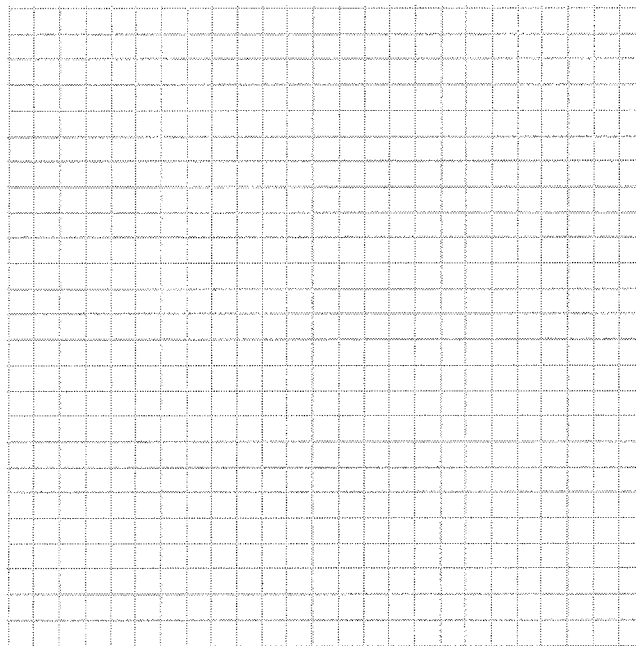
## Modeling Data | 8.6

## Set

Topic: Scatter Plots and line of best fit or trend lines.

11. Create a scatter plot for the data in the table.

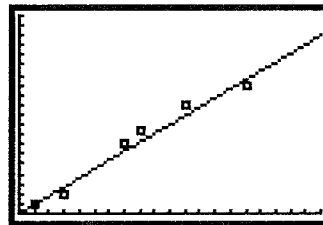
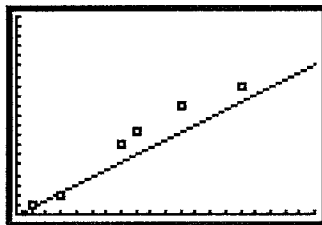
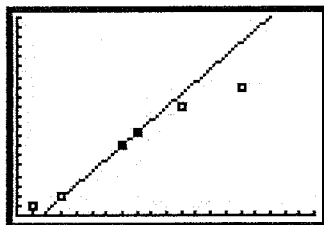
English Score	History Score
60	65
53	59
44	57
61	61
70	67



12. Do the English and History scores have a positive or negative correlation?

13. Do English and History scores have a strong or weak correlation?

14. Which of the graphs below shows the best model for the data and will create the best predictions?  
Circle your choice and say why it is the best model for the data.



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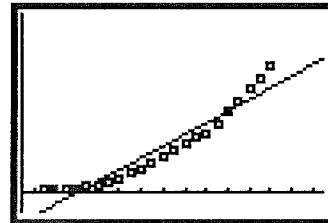
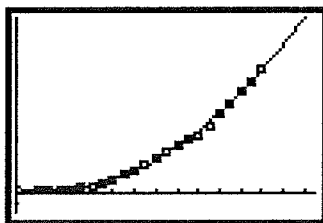
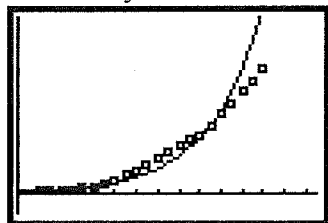
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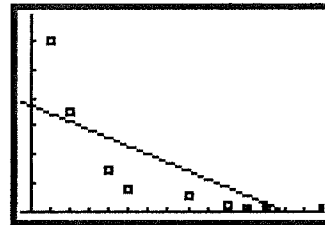
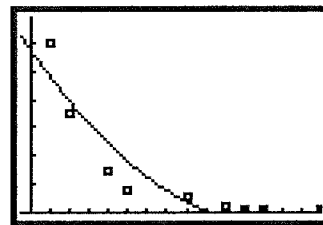
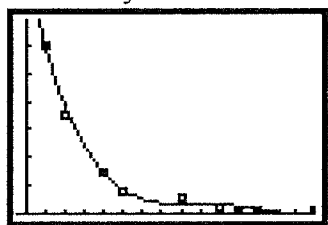
Name: \_\_\_\_\_

## Modeling Data | 8.6

15. Which of the graphs below shows the best model for the data and will create the best predictions?  
Circle your choice and say why it is the best model for the data.



16. Which of the graphs below shows the best model for the data and will create the best predictions?  
Circle your choice and say why it is the best model for the data.



Go

Topic: Creating explicit functions for arithmetic and geometric sequences.

In each problem below an input connected output are given along with either the common difference or the common ratio. Use this information to create an explicit function for the sequence.

17.  $f(2) = 7$ , common difference = 3

18.  $g(1) = 8$ , common ratio = 2

19.  $h(6) = 3$ , common ratio = -3

20.  $r(5) = -3$ , common difference = 7

21.  $g(7) = 1$ , common difference = -9

22.  $g(1) = 5$ , common ratio =  $\frac{1}{2}$

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