

Name: Key

Class: _____

M8-U9: Notes #2 – Making Trend Lines from Scatterplots

Date: _____

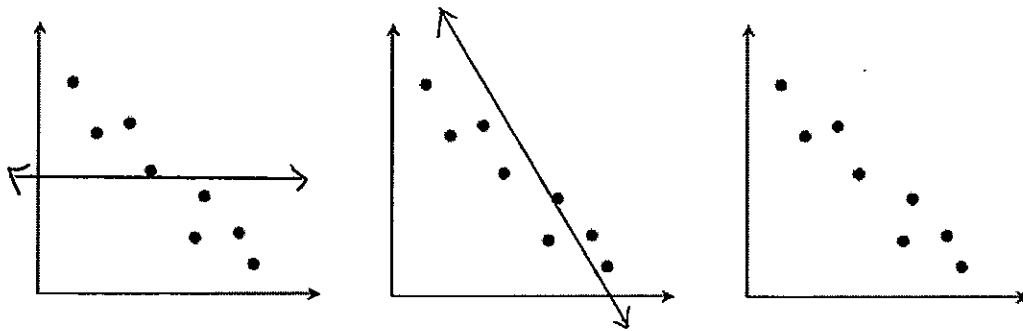
Vocabulary:

Trend Line – a line that models the relationship between two variables in a scatter plot

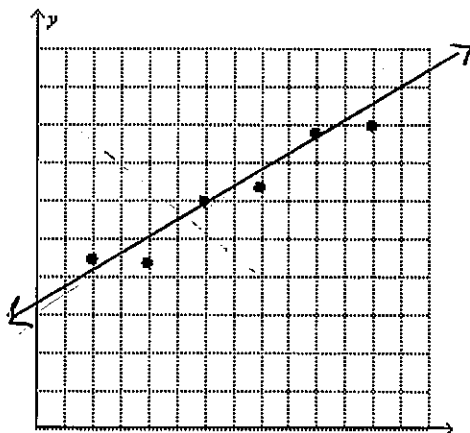
Line of Best Fit – is the trend line that best models the relationship

Drawing Trend Lines – determine which line is best

draw lines, analyze which is best

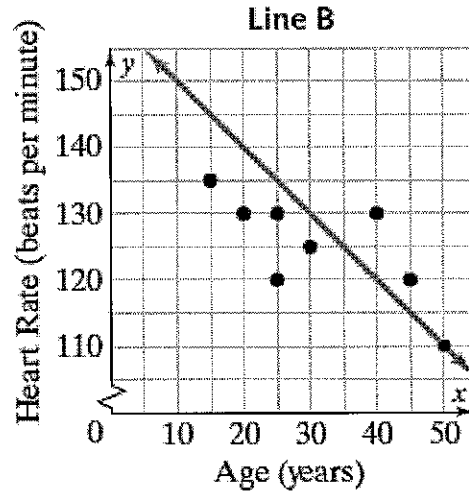
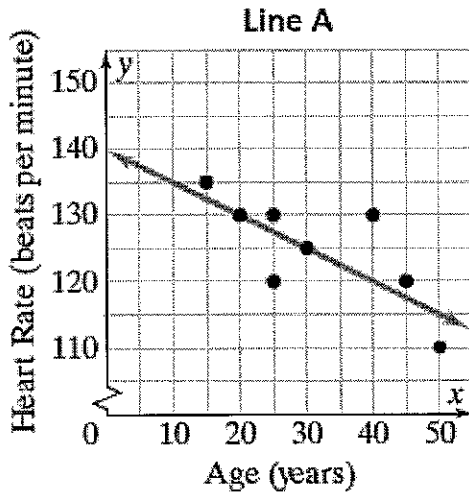


Try It! Draw a trend line, describe the association.



Strong positive linear association

The scatter plots below display the same data about the ages of eight health club members and their heart rates during exercises.



Which line is a better fit for the data? Explain your reasoning.

Line A because it follows the trend of the data points.
The points are closest to the line of best fit.

Try It!

The scatter plot at the right shows the relationship between scores on two different quizzes for ten students in a math class.

a) Assess the fit of the given line for the data.

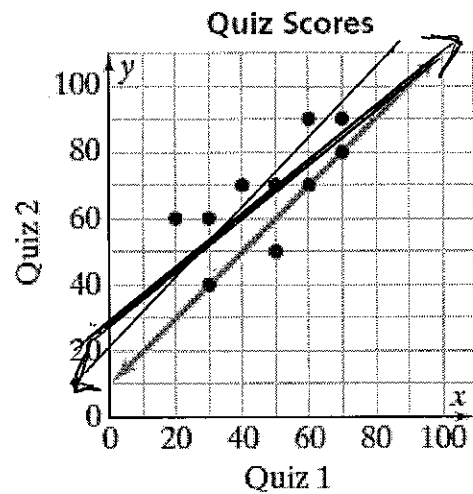
This is not a good line of best fit.

b) Draw a line of your own that is better.

c) Explain why your line is a better fit.

This is a line of best fit because it aligns the points around the line better putting approximately an even amount above and below the line.

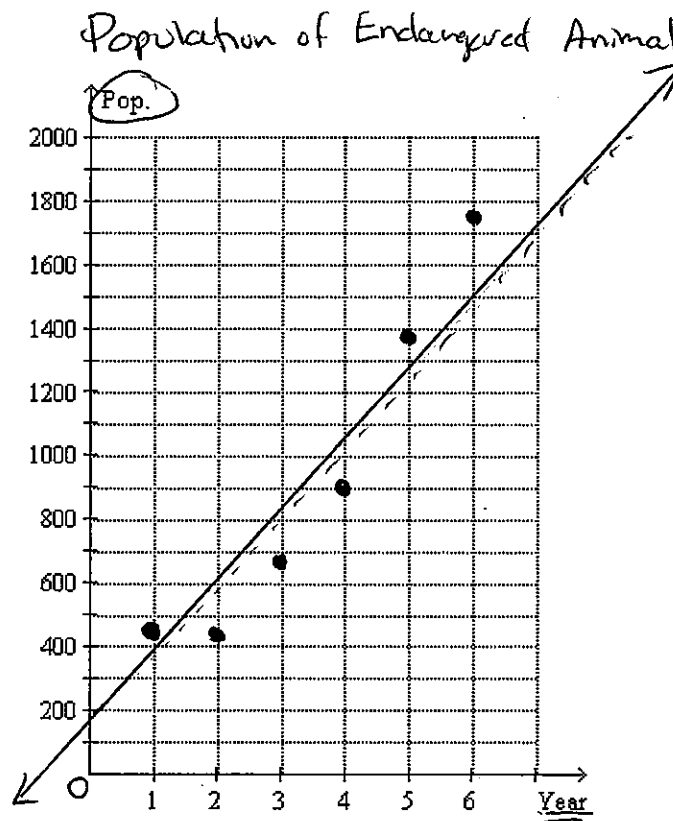
This line represents a better approximate average of quiz scores.



Making a scatter plot & drawing the trend line:

The population of an endangered animal species has been increasing.
Make a scatter plot using the data given in the table, then draw a trend line.

Year	Population
1	440
2	430
3	680
4	900
5	1390
6	1740



- * Scale
- * title
- * main title

Describe the association.

Strong positive linear association.

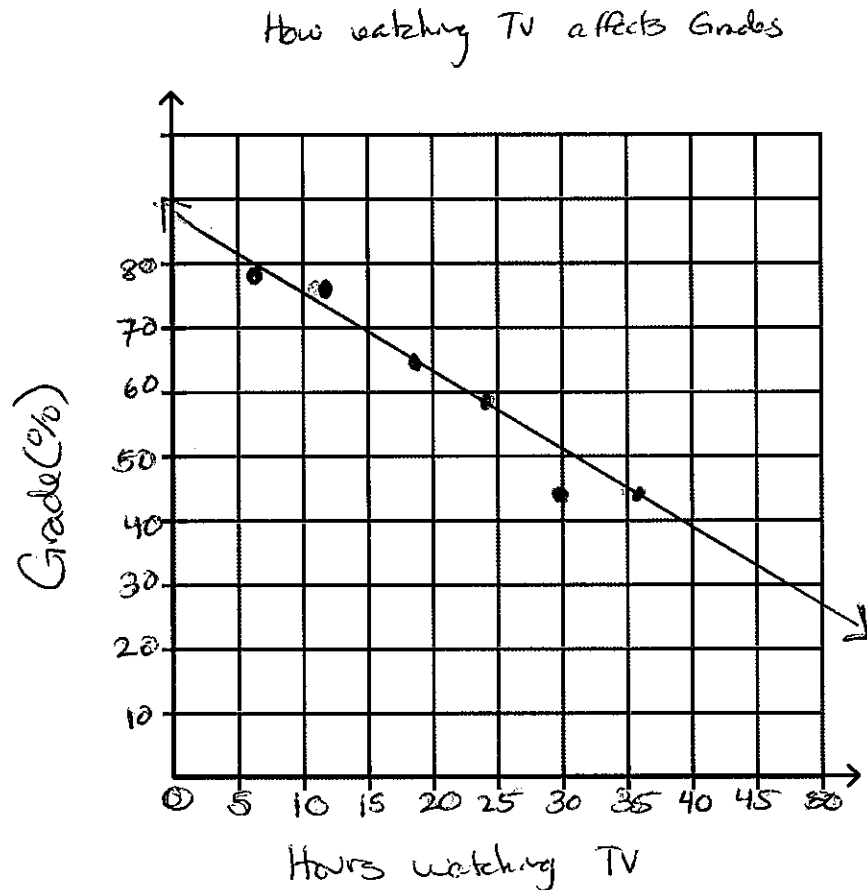
As the years increase the population increases.

Try It!

The table below shows the amount of time several students spent watching TV during one week and their test grades.

Hours Spent Watching TV	6	12	18	24	30	36
Grade (%)	79	77	63	59	43	44

Make a scatter plot for the data provided and draw a trend line.



Describe the association.

Strong negative linear association.

As the hours of TV increases the student's grade decreases.