

Agenda

Homework:

- Scatter Plots WS
- AM

Materials:

- Notebook
- Whiteboard

DO NOW

- Take out homework and write in planner
- **On your desk, create a linear equation from the following two points:**

$(-2, 6)$ $(2, 8)$

Do Now Problem

On your desk, create a linear equation from the following two points:

$(-2, 6)$ $(2, 8)$

Homework Review

Module	Word	Definition	Go Math Page #
14	Scatterplot	A graph with points plotted to show the relationship between two sets of data	433
14	Cluster	A set of closely grouped data. Data may cluster around a point or a line.	434
14	Outlier	A data point that is very different from the rest of the data	434
14	Association	Describes how sets of data are related.	435

Set up Cornell Notes

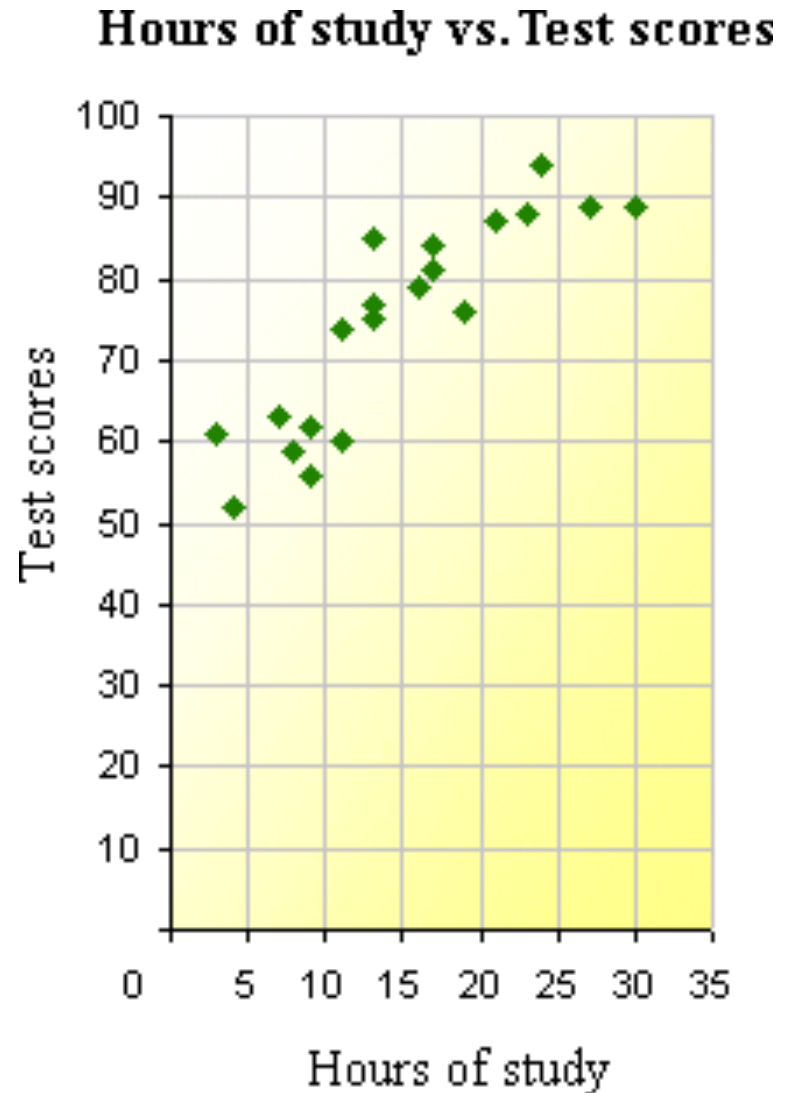
- **Topic:** Scatter Plots Intro
- **EQ:** How do you determine the correlation between two sets of data?

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What is a scatter plot?

- A graph of scattered plotted points
- **Purpose**: Show the **RELATIONSHIP** between two sets of data

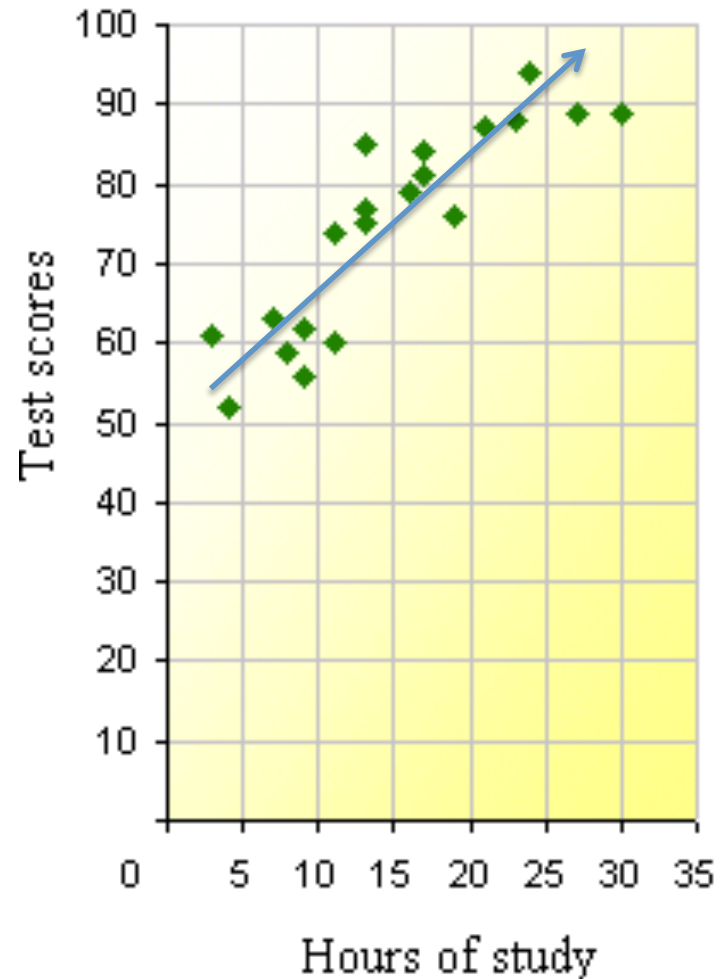


What are the different types of relationships?

Positive

“As hours of study increase, test scores increase”

Hours of study vs. Test scores

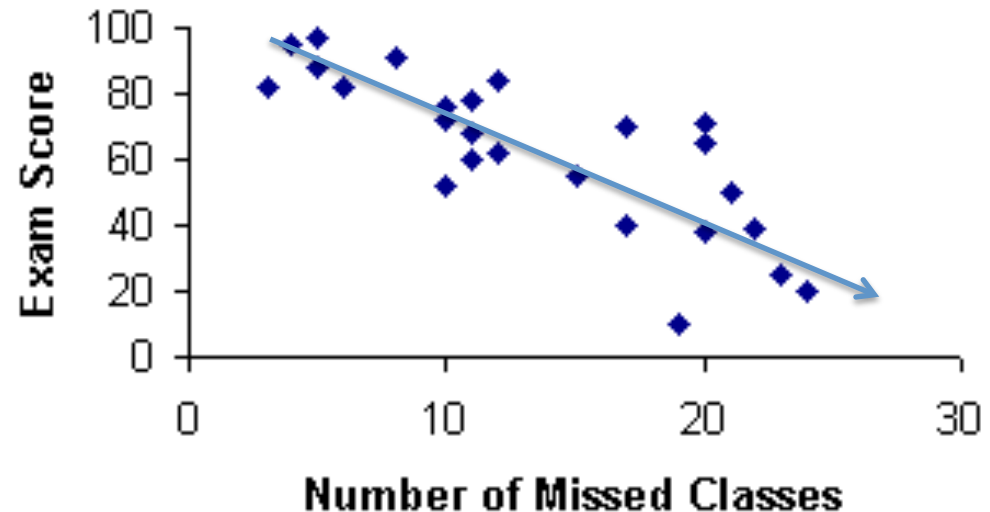


What are the different types of relationships



Negative

“As number of missed classes increase, exam scores decrease”

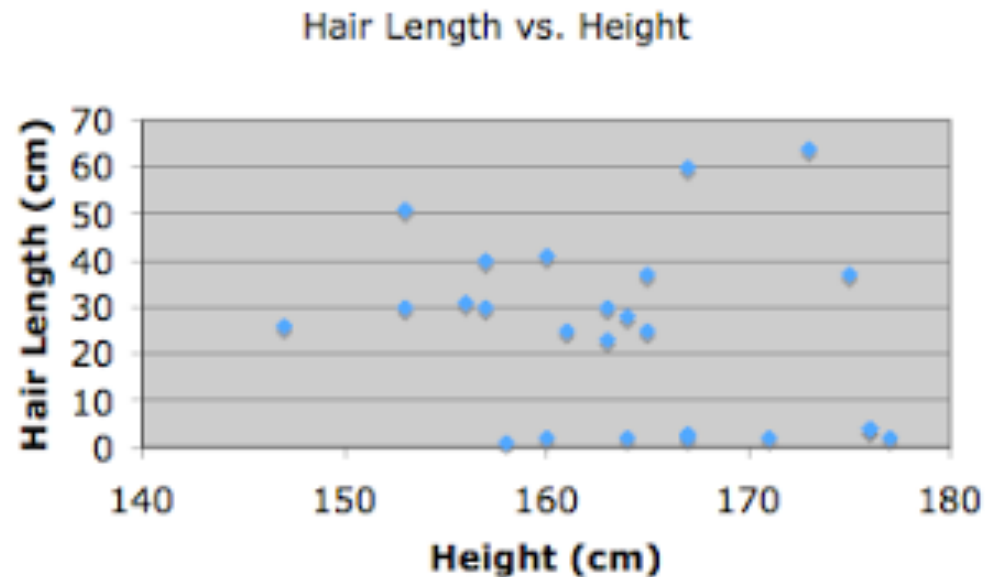


What are the different types of relationships



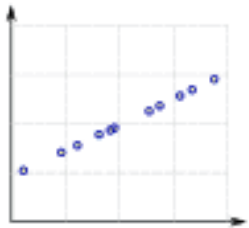
No Linear Relationship

“There is no linear relationship between height of a person and their hair length”

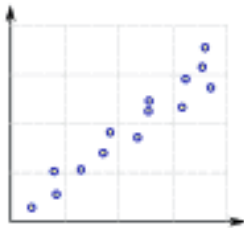


Range of Relationships/Correlations

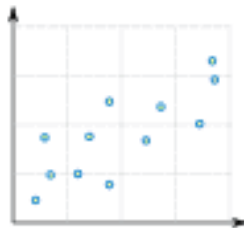
Perfect
Positive
Correlation



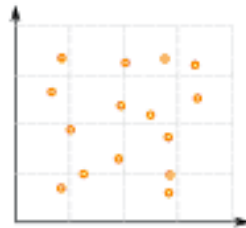
High
Positive
Correlation



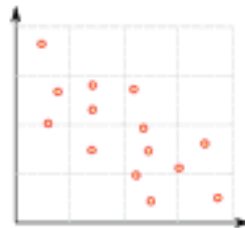
Low
Positive
Correlation



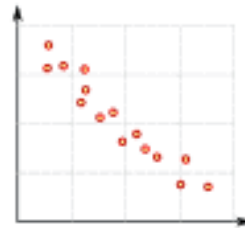
No
Correlation



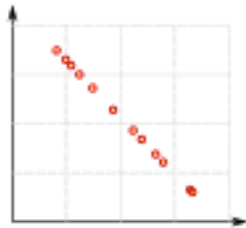
Low
Negative
Correlation



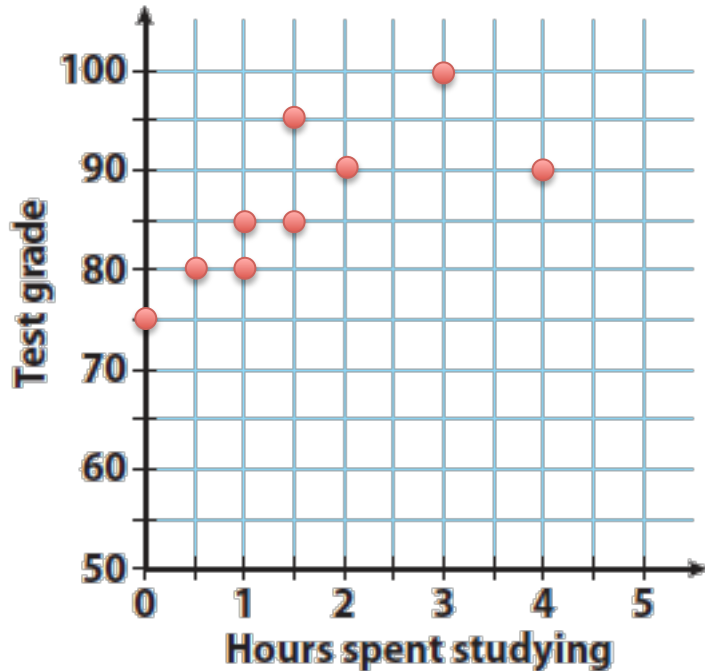
High
Negative
Correlation



Perfect
Negative
Correlation



How do you graph bivariate data?



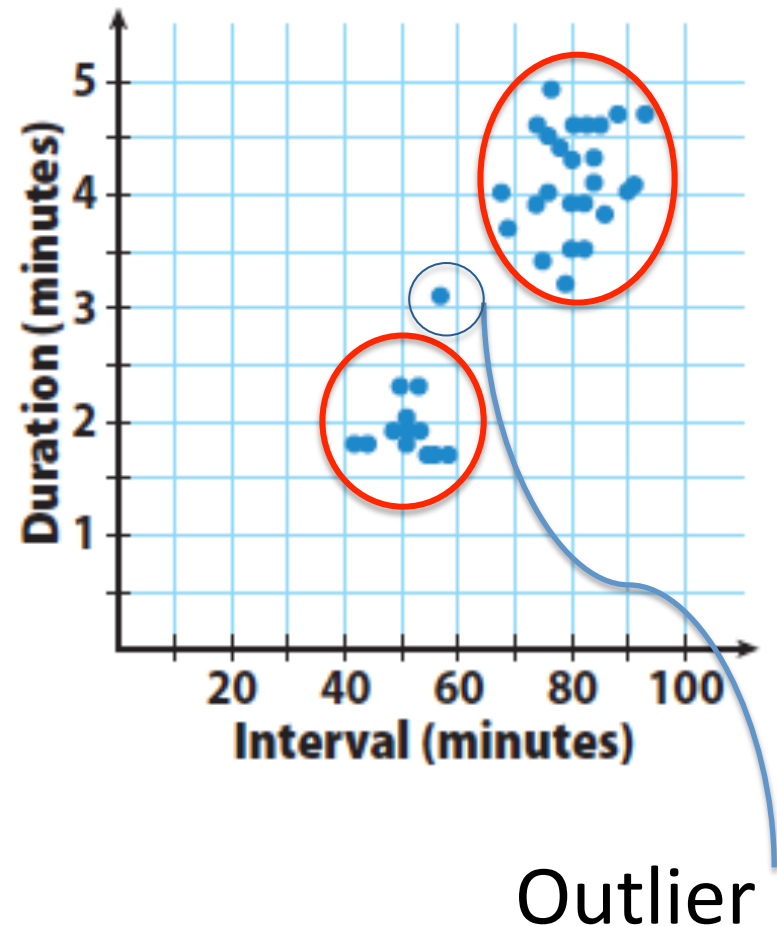
Hours Spent Studying	Test Grade
✓ 0	75
✓ 0.5	80
✓ 1	80
✓ 1	85
✓ 1.5	85
✓ 1.5	95
✓ 2	90
✓ 3	100
✓ 4	90

Positive Correlation: As number of hours studying increases, the test scores increase.

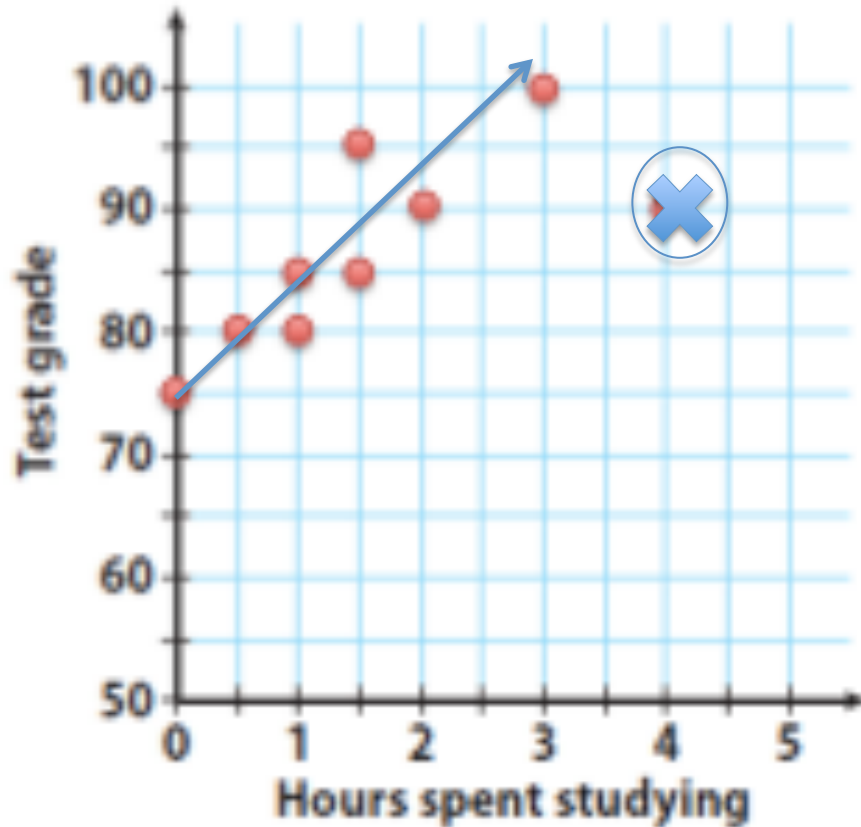
What is an outlier?



An **outlier** is a data point that is VERY DIFFERENT then the rest of the data



How do you draw a line of best fit?



1. Remove the outlier
2. Draw the line so it falls **between** the points