check the solutions with your HW

There is no Warm Up

HW is due before Monday's test

8 Assignments

80

-20% if NOT TURNED IN prior to test.

Test Monday

Shorter periods. If you want, you can split the test, half in AM or after school.

Otherwise, once you start, you must finish. You can work into lunch for 10 minutes.

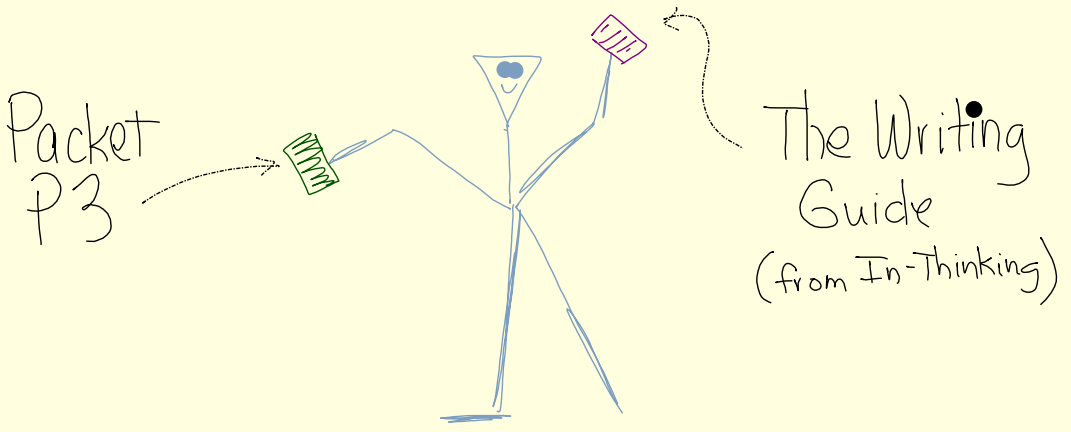
Later: - Study Questions (not turned in)
- Focus on what you need

Four Problem handout (answers posted) — A, B — chi-square TEST
C, D — correlation & LSRL

Ch. 11 Text book Questions
(Review Sets A and B)
answers posted

Project Stuff

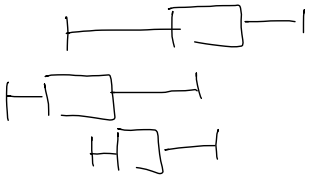
be thinking about ideas for your project



BB example : height vs PPG

and investigated if that changed over time.

Opportunities to:



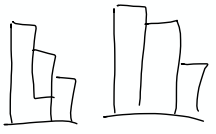
Prison population vs. School Funding

OR

Possible influences on the Number of prisoners in U.S.

Characteristics of a good soccer player

Goal Scoring
Height
Weight
Age
Nationality

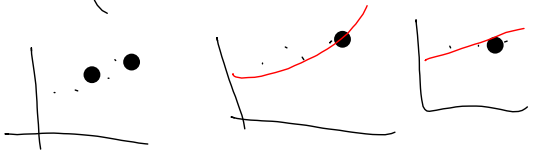


Modeling

Find a linear model to predict the winning hammer throw distances

OR

Predict winning distances of hammer throws. (Look at various models)

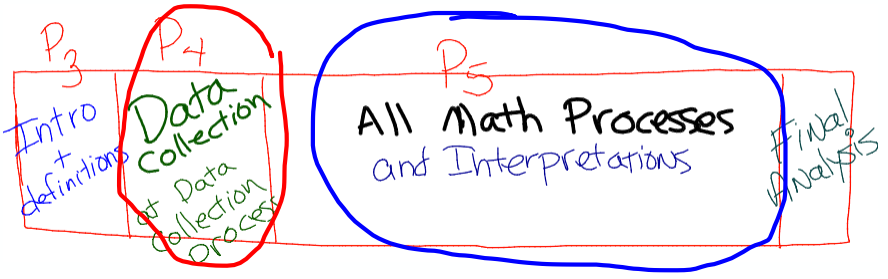


The relationship between the Budget to Produce a Movie and How Much Money the movie makes

We will use computer spreadsheets to:

1. Calculate the Correlation Coefficient "by formula"

2. Calculate the LSRS "by formula"



LOTS OF DATA

A need to be able to store, display, manage, and calculate with the data you collect.

Why ?

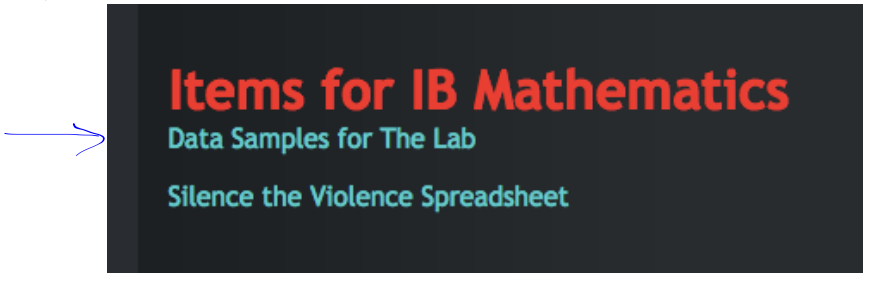
Just in case you use one of these processes

Worst case scenario you get a little spreadsheet experience before heading off to college.

The link to an Data file, called **Data Samples for the Lab**, is located in the class website under "IB-Math Project Information" below Project Resources.

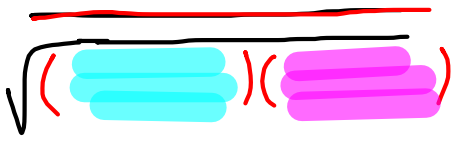
Also have your notes out

IB Math Information



- Pearson's Product Moment Correlation Coefficient

$$r = \frac{\sum(x-\bar{x})(y-\bar{y})}{\sqrt{\sum(x-\bar{x})^2 \sum(y-\bar{y})^2}}$$



=

$$r = \frac{\sum(x-\bar{x})(y-\bar{y})}{\sqrt{\sum(x-\bar{x})^2 \sum(y-\bar{y})^2}}$$

$r = \dfrac{4,910,425.68}{\sqrt{13,698,588,80 \cdot 3270.8226}}$

=

36,506,081,08

Finding the

Least Squares Regression Line

by hand

a.k.a. by First Principles

$$y - \overline{y} = \frac{s_{xy}}{s_x^{\,2}}\,(x - \overline{x})$$

in Point-Slope form

the line passes through the mean point, $(\overline{x}, \overline{y})$

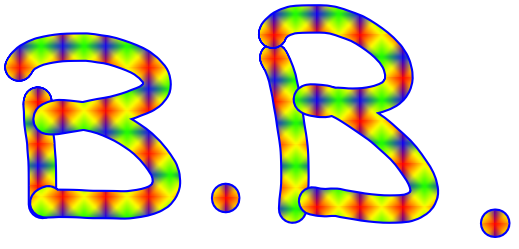
Covariance

$$S_{xy} = \frac{\sum (x - \overline{x})(y - \overline{y})}{n}$$

$$y - \overline{y} = \frac{s_{xy}}{s_x^{\,2}}\,(x - \overline{x})$$

Return your Laptop

and work the rest of the period on the Study questions



The following are suggested study problems for Monday's test. I will post solutions. You will not be turning these in.

1. Four Problems on a worksheet
2. pp.345-348... Review Sets A and B

   You don't need to do them all but pay careful attention to the analysis questions at the end.