Calvin Interview Session 11/11/2015

Jupyter

Excel

Data

Blank

Data

Data

Thousands of rows

Now, do the opposite

**Stats**

**Regression**

X1 Y1

X2 Y2

.

.

.

Xn Yn

If all data sets are doubled by mistake

Compare what happens to R squared, Beta, and t-stat

2)

Regression -> line best fit

But instead u want to add a kink , so we have 2 different lines of best fit met at this kink

Add an “indicator vector” which has 0 for all values less than 5 and 1 for values greater

3)

X -> ux and sigma x

Y

Portfolio weights

Programming

1)

Say you have 32 numbers

what is the minimum number of comparisons that you need to do to find the maximum and the minimum of those 32 numbers?

Answer: 46

Part 2 -> formula is 3n/2 -2, prove it

2)

write the function that outputs the minimum number of perfect squares that add up to the inputted integer

for example, f(13) = 2 since 9 + 4 = 13 and you can't do better than 2

f(12) = 3 since 4 + 4 + 4

methodology:

compare against a vector of perfect squares, starting from the largest

once we hit one which is smaller than the input number, subtract from the number, increment our counter

is the remainer a perfect square?

Compare the remainder to the vector, starting from the perfect square that we used to subtract

Keep going down through the vector

If nothing, then