

DAP: Day 3

Quantitative Data

*98% of all Statistics are made up.
-Unknown*



Quantitative Variable Graphs

Variables that have a numerical value is a quantitative variable.

The graphs of quantitative data is different than categorical.

Histogram/Relative Freq. Histogram

Stem-and-Leaf

Dotplots

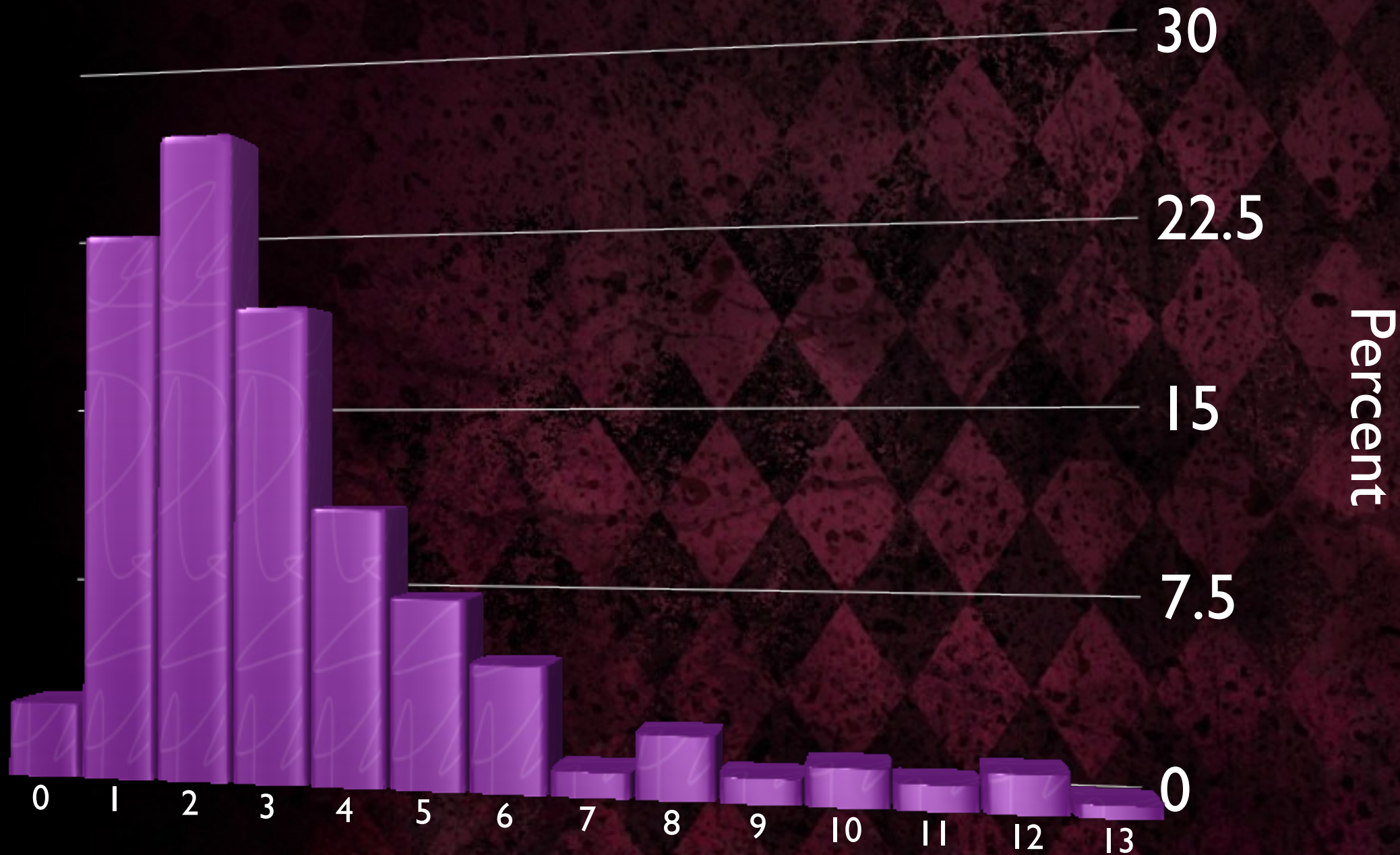
Timeplots

Quantitative Data



Quantitative Variable Graphs: Histogram

■ HOURS SPENT WATCHING TV

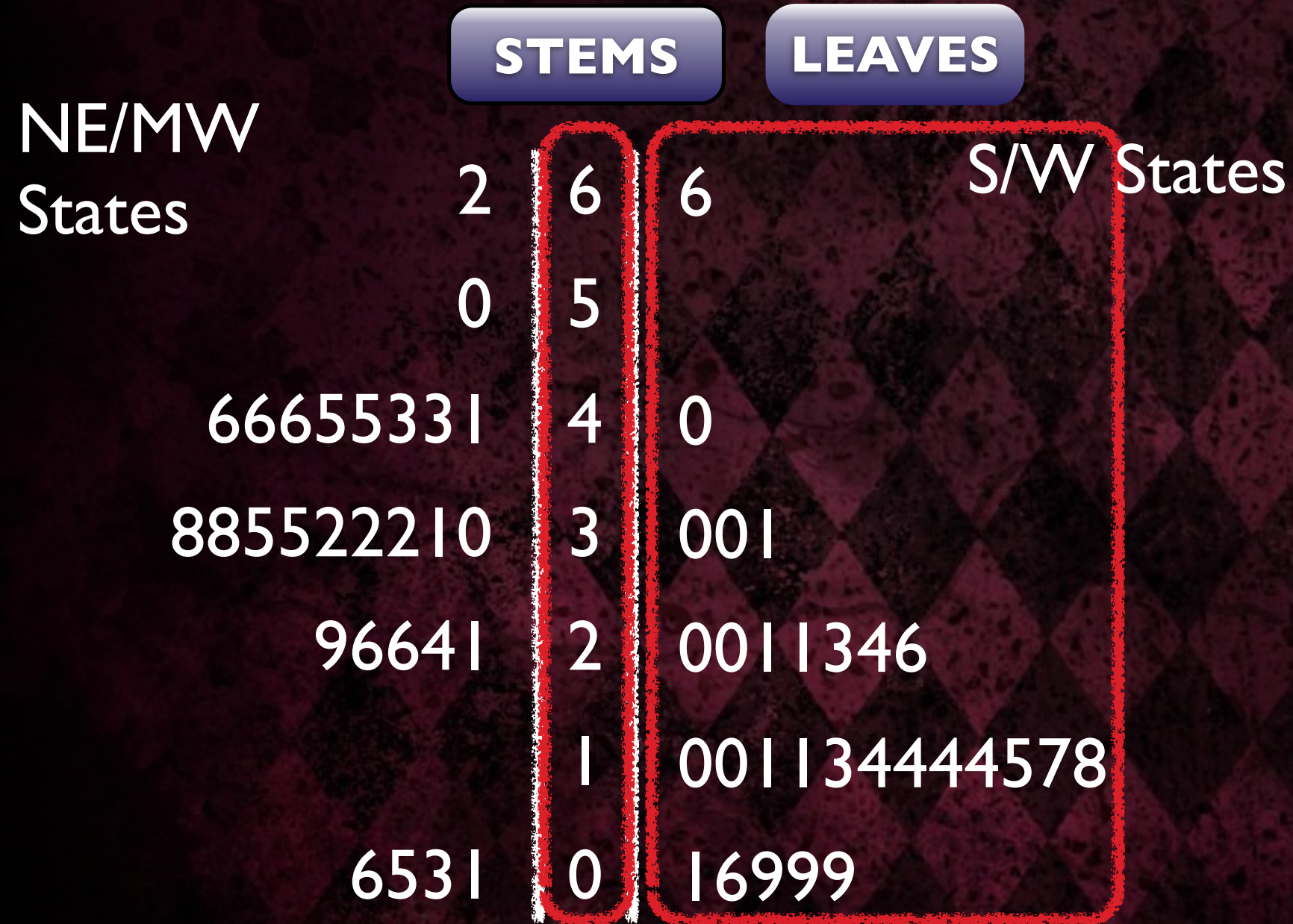


- This **histogram** displays (GSS data from 2002) the responses to “On an average day how many hours a week do you personally watch T.V.?”
- What was the most common response?
- What percent of people watched no more than 2 hours per week?

Quantitative Data



Quantitative Variable Graphs: Stem-and-Leaf



Population Growth Rate (|6|6 means 66%)

Smallest numbers closest to stems

• This stem-and-leaf plot displays the percent change in population for two regions of the United States.

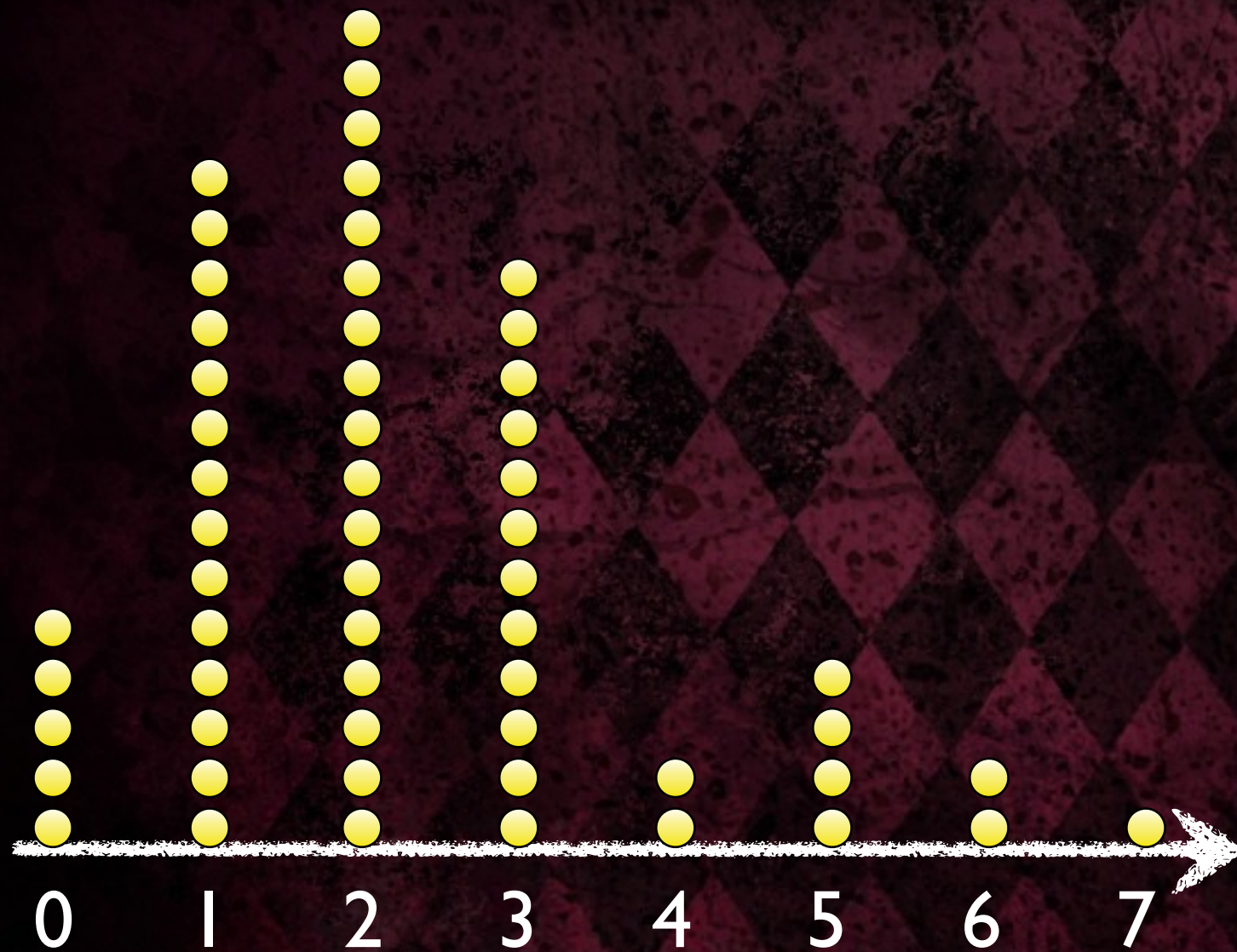
1	6	9	9	9	10
10	11	11	13	14	14
14	14	15	17	18	20
20	21	21	23	24	26
30	30	31	40	66	

Quantitative Data



Quantitative Variable Graphs: Dot Plot

- Make a dot plot by first making a number line and then add a dot for each number in the data set.



- The following data is the number of hurricanes that happened each year from 1944 through 2000 as reported by Science magazine.

• 3,2,1,4,3,7,2,3,3,2

• 5,2,2,4,2,2,6,0,2,5

• 1,3,1,0,3,2,1,0,1,2

• 3,2,1,2,2,2,3,1,1,1

• 3,0,1,3,2,1,2,1,1,0

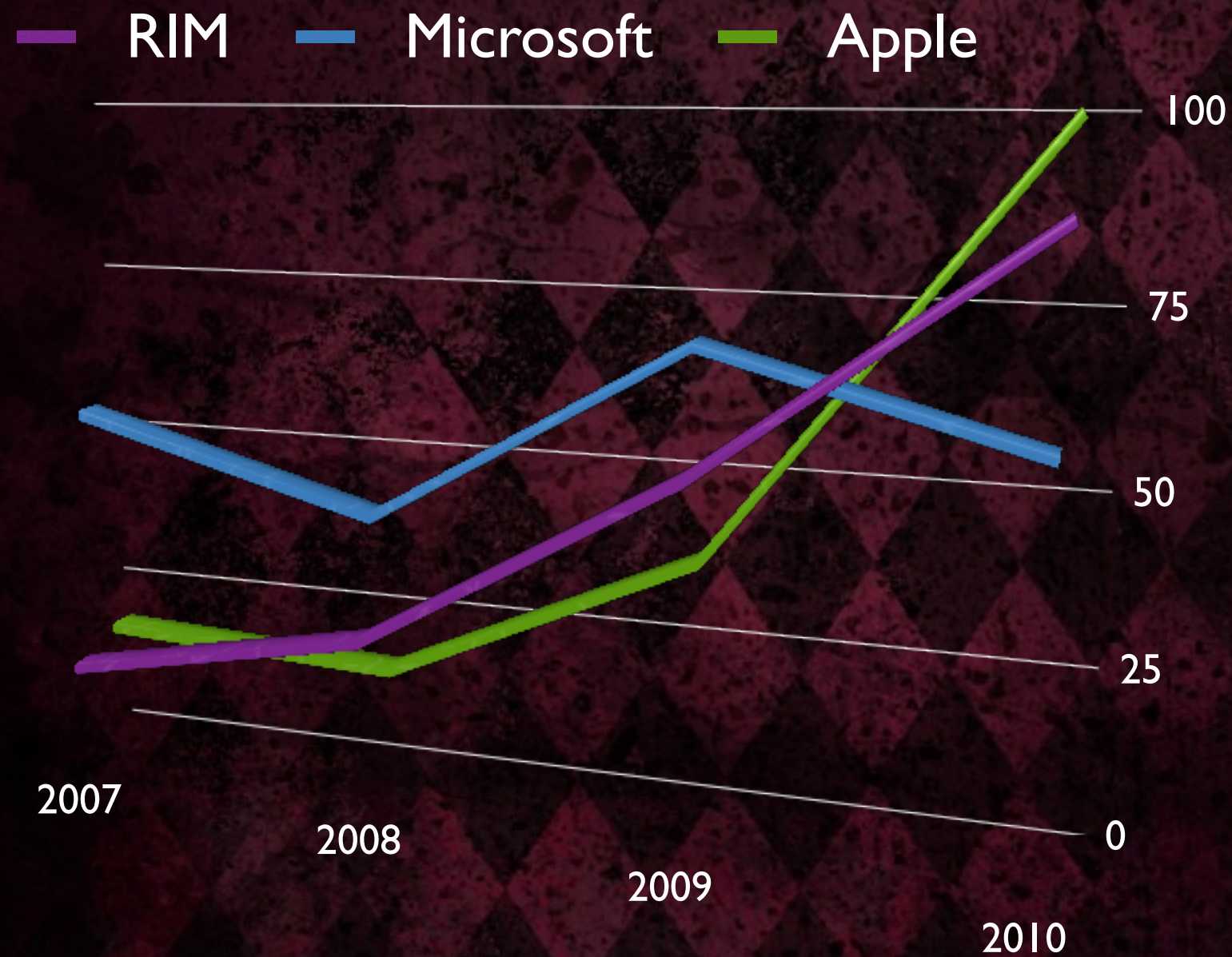
• 5,6,1,3,5,3

Quantitative Data



Quantitative Variable Graphs: Time plot

- We won't need to make a time plot but we do need to interpret them.



- Time plots are like dotplots where we add time as the x variable and the value of the data point as the y variable.

- We observe the **trend** over time by connecting the dots with a line.

- This is most commonly seen on the stock market.

Quantitative Data



Back to the M&Ms...

- Lets go back to the M&Ms and make a histogram of the number of blue M&Ms.
- Take your number of blue M&Ms and write it down on a small post-it note.
- Post your note on the board over the correct number.
- Write down all the values so we can use them later.

Quantitative Data

