

Crafting with Data

Reality, Illusions, Truth & the Future

Instructor: Rob Faludi

Plan for Today

- Discovery Seeker Results
- Exercise One: Spinning Coins
- Coin Toss Results
- Africa and Measuring Data, some more results
- Present New York Data project results
- Readings & Assignments

Discovery Seeker: Results

- question you had
- how you collected data
- analysis attempted
- answers you may now have

Histograms in Spreadsheets

- data
 - uniform
 - normal
- bins
- frequency
- charts

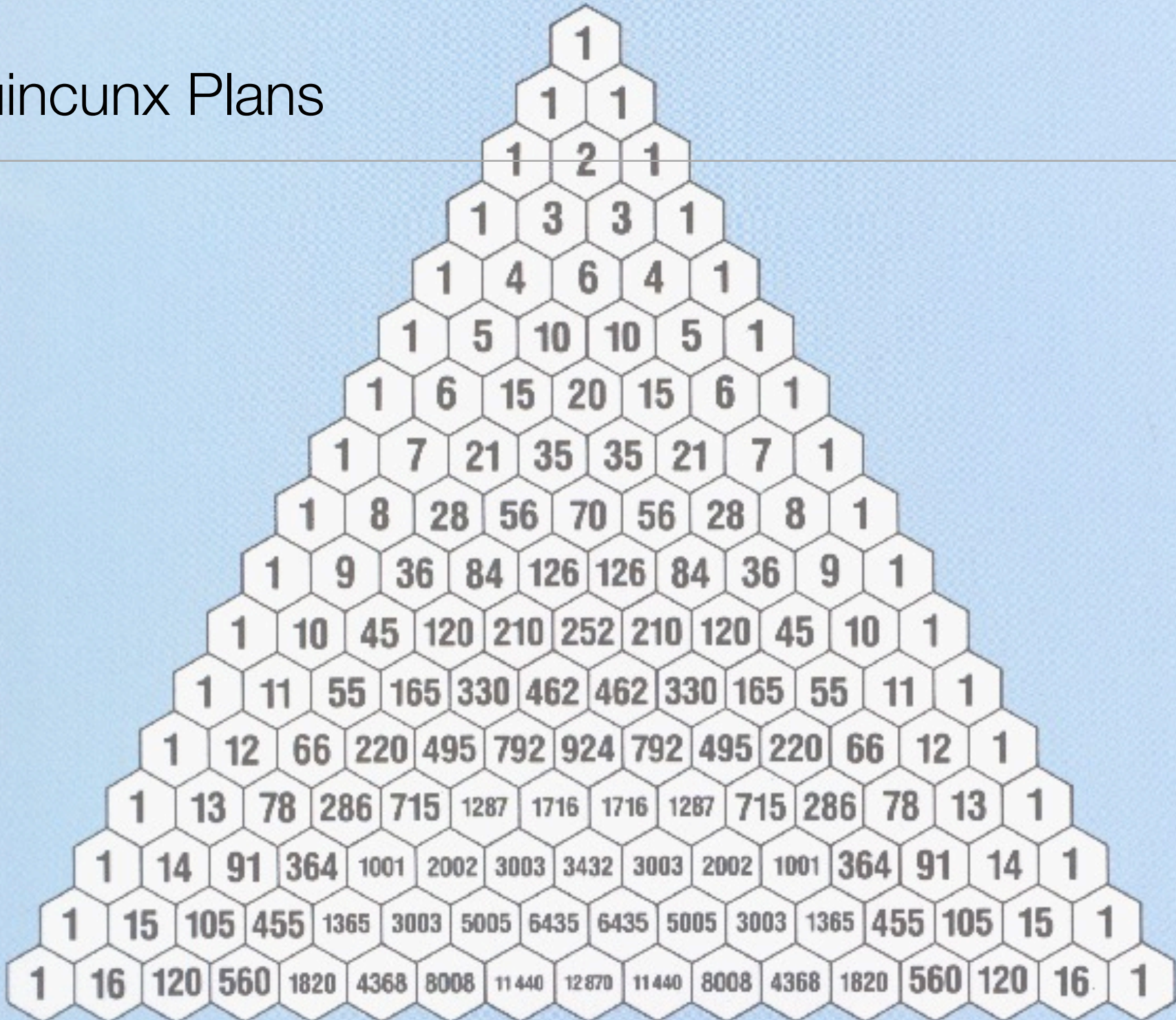
Exercise One: Spinning Coins

- Using pennies, gather the results of 30 coin spins each, spinning the coin on edge on a table, achieving a stable spin and waiting for it to fall over without hitting anything.
- Enter the results in the class Google Spreadsheet
- Are the results biased or fair? How can we tell?
- BINOMDIST(number_s, trials, probability_s ,cumulative)
 - number heads, total trials, 0.5, TRUE
- *Extra Credit: try standing some coins on edge and then banging the table.*

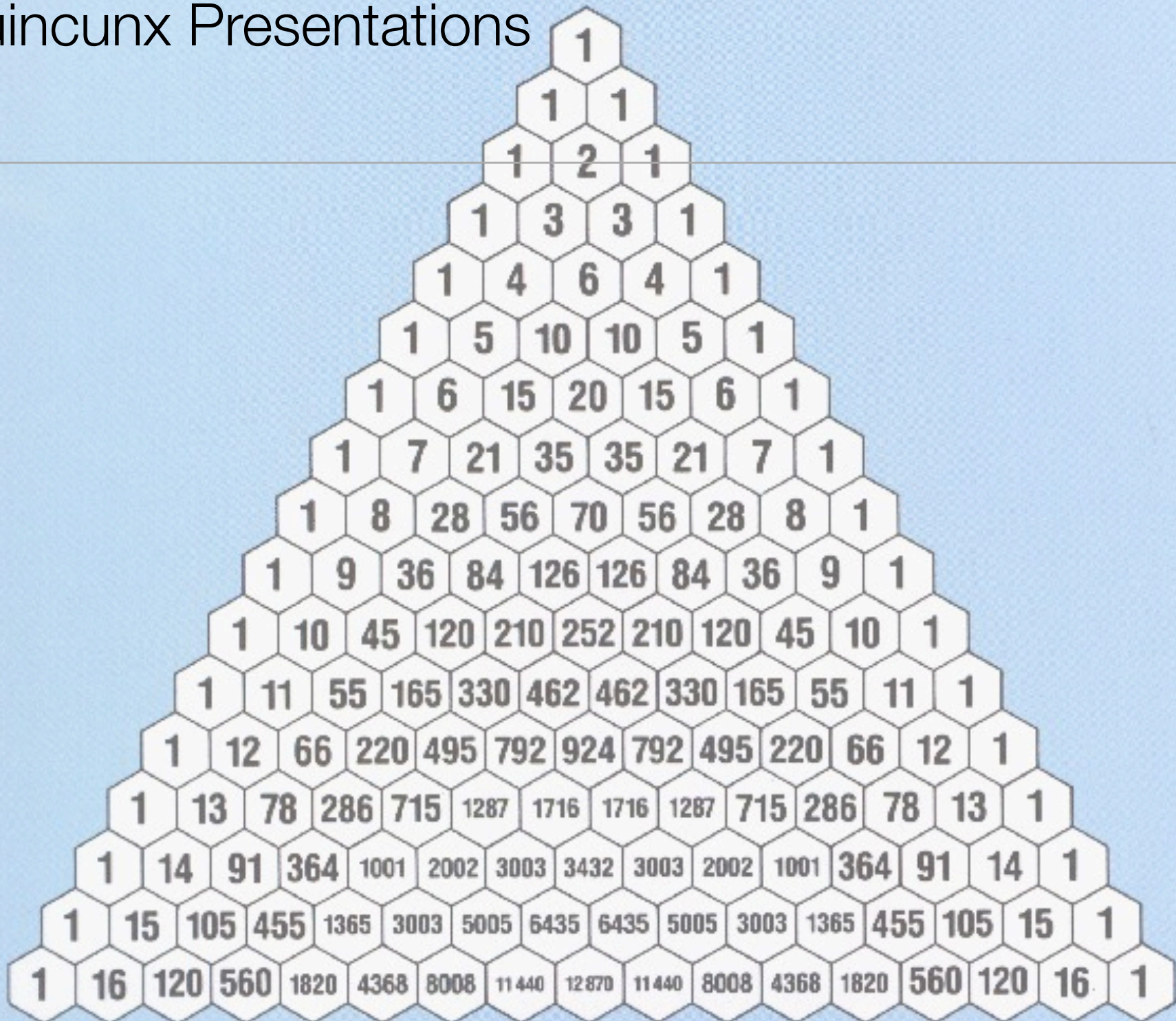
Mastermind

- Mastermind
 - <http://www.irt.org/games/js/mind/>
- Play some games
 - try guessing, isolating variable, formal hypothesis

Quincunx Plans



Quincunx Presentations



Readings and Assignments

- Readings

- The Lady Tasting Tea, by David Salsburg — Chapters 3, 4 & 5

- Assignments

- Finish Quincunx if needed.
- Play some Mastermind games and make a list of similarities to research, debugging, discovery, creative iterations

