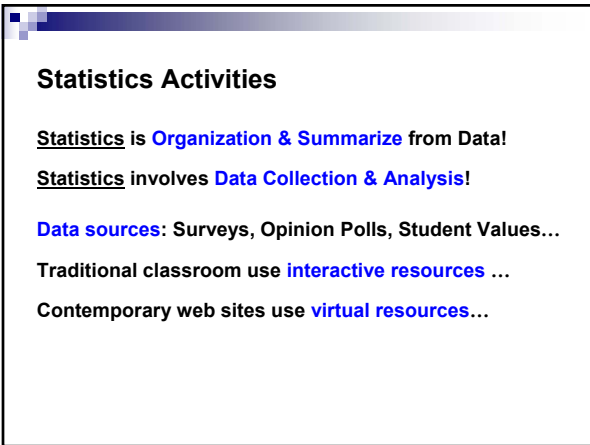


Data Analysis: M, M, M, R
Mathematics and Millennials – 6th



Statistics Activities

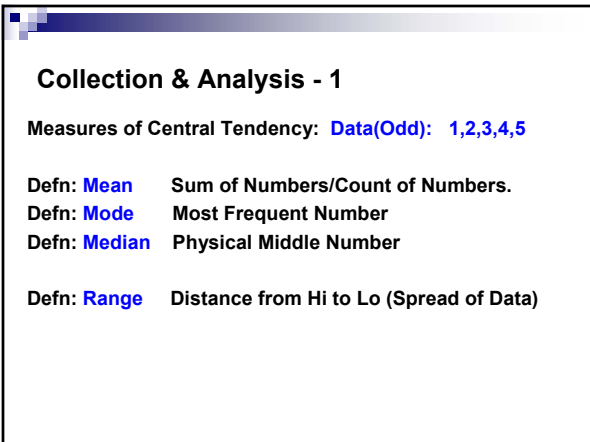
Statistics is **Organization & Summarize** from Data!

Statistics involves **Data Collection & Analysis!**

Data sources: Surveys, Opinion Polls, Student Values...

Traditional classroom use **interactive resources** ...

Contemporary web sites use **virtual resources**...



Collection & Analysis - 1

Measures of Central Tendency: **Data(Odd): 1,2,3,4,5**

Defn: **Mean** Sum of Numbers/Count of Numbers.

Defn: **Mode** Most Frequent Number

Defn: **Median** Physical Middle Number

Defn: **Range** Distance from Hi to Lo (Spread of Data)

Collection & Analysis - 2

Measures of Central Tendency: **Data(Even): 1,3,5,7**

Defn: **Mean** Sum of Numbers/Count of Numbers.

Defn: **Mode** Most Frequent Number

Defn: **Median** Physical Middle Number

Defn: **Range** Distance from Hi to Lo (Spread of Data)

Organization & Analysis

Statistics is an important activity for all **Curriculums**.

Statistics is a major area of study in Mathematics.

Statistics is **common knowledge** expected of **All!**

Data sources: Newspapers, Magazines, Television
Internet, World Wide Web...

Raw Data - 1

Raw Quiz Scores 7, 5, 3, 6, 7, 8, 6, 3, 2, 2, 3,
7, 6, 6, 5, 9, 8, 3, 2, 3, 5, 4, 4, 5, 6, 3, 8,
9, 8, 7, 6, 5, 4, 6, 3, 7

Raw Data must be **collected & organized!**

Best way to organize is assemble into a table.

Scores are **tallied** (marked) for ease of organization.

Repeat tally with **opposite marks** to insure accuracy

Raw Data - 2

Raw Quiz Scores 7, 5, 3, 6, 7, 8, 6, 3, 2, 2, 3, 7, 6, 6, 5, 9, 8, 3, 2, 3, 5, 4, 4, 5, 6, 3, 8, 9, 8, 7, 6, 5, 4, 6, 3, 7

Rank scores **Hi to Lo** when assembled in table.

Number Tally Frequency N x F

Change tally to a numeric value for calculations.

Sub-totals: Score Number (x) Frequency Value

Raw Data - 3

Number	Tally	Frequency	N x F
9		2	18
8		4	32
7		5	35
6		7	42
5		5	25
4		3	12
3		7	21
2		3	6
	36	36	191

Organization & Analysis

Review of Basic Descriptive Statistical Terms:

Mean: Sum of Numbers / Count of Numbers

Mode: Most frequent number to be Talled

Median: Physical middle number if possible

Range: Difference of Hi and Lo (Dispersion)

Organization & Analysis

Measures of Central Tendency & Dispersion

Mean: $191 / 36 = 5.3$ Calculated value **not score!**

Mode: 6 and 3 Bimodal or Two Modes!

Median: $(6+5)/2 = 5.5$ Calculated value **not score!**

Range: High - Low = $(9 - 2) = 7$ (Dispersion)

Conclusion
