

Math 7 - Unit 6

Day 6 - Measure of Variation

Lesson Objectives:

- I can find the quartiles, extremes, range, and interquartile range of a set of data.
- I can use measures of variability to draw informal inferences about a population.

Sometimes it is useful to compare data in ways other than looking at the middle information (mean, median, mode). Measures of variation are used to describe the distribution (or spread) of data.

- The upper extreme is the highest number in a set of data.
- The lower extreme is the lowest number in a set of data.
- The range of a set of numbers is the difference between the upper and lower extreme.

- The upper quartile is the median of the upper half of a set of data.
- The lower quartile is the median of the lower half of a set of data.
- The interquartile range is the range of the middle half of a set of data. In symbols $IQR = UQ - LQ$.

Arrange each set of numbers in order from least to greatest. Then find the range, lower quartile, median, upper quartile, and inter-quartile range.

~~20, 25, 16, 18, 29, 15, 28, 27, 26, 9, 28, 30~~
 9, 15, 16, 18, 24, 25, 26, 27, 28, 28, 30
 m

*Range: $30 - 9 = 21$

median: 25.5

UQ: 28

LQ: 17

*IQR: $28 - 17 = 11$

Arrange each set of numbers in order from least to greatest. Then find the range, lower quartile, median, upper quartile, and inter-quartile range.

~~2, 27, 17, 14, 14, 22, 15, 32, 24, 25~~
 2, 14, 14, 15, 17, 22, 24, 25, 27, 32

range: $32 - 2 = 30$

m: 19.5

UQ: 25

LQ: 14

IQR: $25 - 14 = 11$

Arrange each set of numbers in order from least to greatest. Then find the range, lower quartile, median, upper quartile, and inter-quartile range.

0, 24, 32, 33, 34, 34, 36, 36, 37, 38, 40, 45

range: $45 - 0 = 45$

m: 35

UQ: 37.5

LQ: 32.5

IQR: $37.5 - 32.5 = 5$



Homework

Measures of Variation WKS

* Individual Think Time *



What to do if you get stuck...

1. Reread the problem. Did you write it down correctly?
2. Reread your notes. Is there a problem similar that we did together in class?
3. Find a problem similar in your book. Try this one to see if it helps.
4. Skip the problem until the end of Individual Think Time. Then ask an "educated" question of a neighbor or Mrs. Call.

Today we're working by...

