


Table of contents

10-3 Data Distributions Day 1.....#

Goal: Describe the central tendency of a data set

Find mean, median, mode, range and Outliers



Jan 25-7:58 AM

A measure of central tendency describes how data clusters around a value.

Which measure of central tendency does not exist for every data set?

*The **mean:** average $\frac{\text{Add All}}{\# \text{ items}}$

The **median:** middle x x x x x
x x / x x

The **mode:** most

The **range:** big - small = spread

$35 - 2 = 33$

$35 - 25 = 10$

Jan 25-8:08 AM

Find the mean, median, mode, and range of the data set.

1. The number of hours students spent working during one week:
~~15, 2, 10, 20, 15, 20, 3, 25, 44~~

mean: $\frac{154}{9} = 17.1$

med: 2, 3, 10, 15, 15, 20, 20, 25, 44
(15)

mode: 15, 20

range: $44 - 2 = 42$

Jan 25-8:43 AM

Find the mean, median, mode, and range of the data set.

2. Data set: 15, 3, 7, 22, 12, 28

Mean: $\frac{87}{6} = 14.5$

Median: 3, 7, 12, 15, 22, 28
 $\frac{12+15}{2} = 13.5$

Mode: no mode

Range: $28 - 3 = 25$

Jan 25-8:50 AM


Find the mean, median, mode, and range of the data set.

One more...by yourself!!!
 (left page)

3. Data set: 12, 18, 14, 17, 12, 18

Jan 25-8:44 AM

A value that is very different from other values in the set is called an **outlier**. In the data below, one value is much greater than the other values. This causes the mean to be greater than all of the other data values. In this case, either the median or mode would better describe the data.




1. For the data set: 15, 23, 92, 15, 25

Mean = Median = Mode = 15

- Does this data set have an outlier?
- If so, and the outlier were removed, would the mean change and how?
- If the outlier were removed would it affect the median and how?
- If the outlier were removed would it affect the mode and how?
- Which measure of central tendency best describes this set of data if no numbers were removed?

Jan 21-1:47 PM

Assignment: *tenileaf*
p.690 (3, 4) *Frequency*
p.697 (2-6, 15, 20-28, 30) *evens only*



Jan 25-8:39 AM