

HW: Worksheet/25, 27-33, 36

Warm up:

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

~~14, 42, 35, 33, 22, 29, 27, 38, 102, 41, 33, 35~~
 14, 22, 27, 29, 33, 33, 35, 35, 38, 41, 42, 102

$$\text{mean} = \frac{451}{12} = 37.58\overline{3} \approx 37.58$$

$$\text{median} = \frac{33 + 35}{2} = 34$$

$$\text{mode} = 33 \text{ and } 35$$

$$\text{range} = 102 - 14 = 88$$

↑
outlier

HW Solutions

⑦

~~93, 84, 80, 91, 94, 90, 78, 93, 80~~

78, 80, 80, 84, 90, 91, 93, 93, 94

$$\text{mean} = \frac{783}{9} = 87$$

$$\text{median} = 90$$

$$\text{mode} = 80 \text{ and } 93$$

(10) ~~-2, -8, -2, 2, -1, 1, 2, -1~~
~~-8, -2, -2, -2, -1, -1, 0, 1~~

$$\text{mean} = \frac{-15}{8} = -1.875 \approx -1.9$$

$$\text{median} = \frac{-2 + (-1)}{2} = -1.5$$

$$\text{mode} = -2$$

8, 12, 15, 23

⑬ always

⑭ always

⑮ sometimes

14, 42, 35, 33, 22, 29, 27, 38, 102, 41, 33, 35

Is the mean the best way to represent this data? Why or why not?

no

because there is
an outlier

When are these most useful?

mean when there are no outliers

median there are outliers
no big gaps in the middle of the data

mode data has many identical numbers

range describing the spread of the data

The following are test scores from the last science test. Which measure of central tendency would best describe the data? Mean, median or mode?

~~98, 89, 85, 99, 87, 91, 100, 82, 21, 79, 95~~

21, 79, ~~82~~, 85, 87, 89, 91, 95, 98, 99, 100

$$\text{mean} = \frac{926}{11} = 84.18\overline{18} \approx 84.18$$

$$\text{median} = 89$$

mode \rightarrow no mode

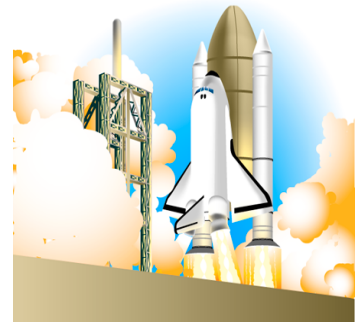
median



Question from last night's homework:

Countries with people sent to space

267, 1, 9, 8, 1, 1, 1,
1, 1, 97, 1, 1, 1, 3,
1, 1, 2, 1, 11, 2, 1,
1, 5, 1, 1, 1, 1



Which measure best describes the data: mean, median, or mode?

mode

The following are test scores from two classes at West High School. Using our measures of central tendency, what can we say about the two classes?

$$\text{mean} = \frac{978}{12} = 81.5 \quad \text{mode} = 100$$

$$\text{median} = \frac{89 + 94}{2} = 91.5$$

First Period



~~14, 32, 81, 88, 89, 87, 98, 94, 99, 96, 100, 100~~
 14, 32, 81, 87, 88, 89, 94, 96, 98, 99, 100, 100

Second Period

~~72, 89, 85, 81, 82, 87, 86, 84, 83, 87, 83, 88~~
 72, 81, 82, 83, 83, 84, 85, 86, 87, 87, 88, 89

$$\text{mean} = \frac{1007}{12} = 83.92$$

$$\text{median} = \frac{84 + 85}{2} = 84.5 \quad \text{mode} = 83 \text{ and } 87$$

March 9, 2022

