



### Essential Question

How do you find mean, median, mode and range and use them to describe a data set?

Homework is on Khan Academy.

Due by Thursday night

# MEAN, MEDIAN, MODE & RANGE

## (M+E+A+N) ÷ #

the average of a set of data found by adding all the numbers together and dividing by how many data points there are.

1.  $6+4+7+5+3 = \frac{25}{5} = 5$

- 1. 6, 4, 7, 5, 3

2.  $19, 21, 16, 24 \quad 80 \div 4 = 20$

3.  $5, 3, 8, 9, 6, 5, 9, 7 \quad 6.5$

$8, 17, 11, 14 = 52$   
 $25+27 = 52$

$\begin{array}{r} 19 \\ 21 \\ 16 \\ +24 \\ \hline 80 \end{array}$

$8 \overline{)52.0}$   
 $\underline{48}$   
 $40$

the middle number of an ordered set of data



- 1. 7, 9, 5, 7, 3    3, 5, 7, 7, 9
- 2. 18, 10, 14, 8, 20, 25    8, 10, 14, 18, 20, 25

Two in the middle? Add them & divide by 2

$\frac{14+18}{2} = \frac{32}{2} = 16$

## MEASURES OF CENTER

Describes a data set by identifying a "typical" number

## MEASURE OF VARIABILITY

Describes a data set by identifying how spread out the data is

the difference between the highest and lowest numbers

HIGH - LOW

## RANGE

- 1. 4, 9, 12, 8, 5, 8     $15-8=7$
- 2. 6, 5, 6, 4, 8     $8-4=4$

## MODES

the number that occurs most often

- 1. 5, 8, 3, 8, 4, 8, 5    8
- 2. 4, 9, 6, 9, 4, 7    9 and 14
- 3. 7, 2, 5, 3    No mode

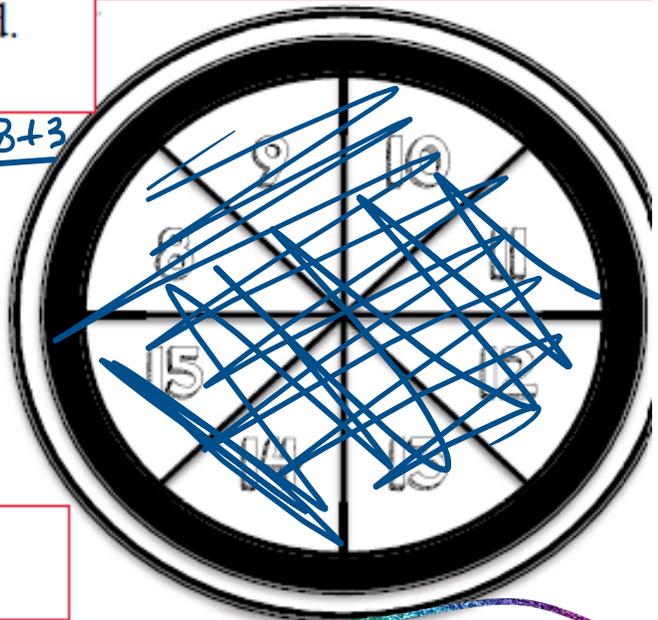
# >>>>>>>>>> SPIN & SOLVE <<<<<<<<<<<<

1) Use the numbers below to answer a - d.  
9, 8, 11, 5, 2, 8, 3

Handwritten calculations:  

$$\begin{array}{r} 657 \\ +600 \\ \hline 1257 \\ -420 \\ \hline 837 \\ -350 \\ \hline 487 \\ -480 \\ \hline 7 \end{array}$$

a) Find the mean.  $\frac{9+8+11+5+2+8+3}{7} = 6.57$   
 b) Find the median. 2, 3, 5, 8, 8, 9, 11  
 c) Find the mode. 8  
 d) Find the range.  $11 - 2 = 9$



2) Use the numbers below to answer a-d:  
9, 15, 15, 5, 4, 11, 8, 7, 8, 5

Handwritten calculations:  
 a) Find the mean.  $\frac{9+15+15+5+4+11+8+7+8+5}{10} = 8.7$   
 b) Find the median. = 8

c) Find the mode. Three Modes: 5, 8, and 15  
 d) Find the range.  $15 - 4 = 11$

## SPLAT

Oh no! Paint splattered all over the data sets below. Help uncover the hidden numbers.

10 8 7 5  
Mode = 7

3 9 8 7   
Range = 10  
 $10 = \square - 2$

12 8 4 9  
Median = 9  
4 8 9 12

4 7 6  
Mean = 5  
 $\square + 4 + 7 + 6 = 20$

4 12 10   
Median = 8

9 5 8 7 5   
Mean =  $7 \times 6 = 42$

Homework is on Khan Academy.

Due by \_\_\_\_\_.

$$\begin{array}{r} 4 \square + 10 = 12 \\ \square + 10 = 12 \\ \square = 2 \end{array}$$

$$42 - (34) = 8$$

$$(4)(5) = 20 = 17 + \square$$

$$16 = \square + 10$$