

# Median Modeling

This is to be used as a transparency teaching tool to model how to figure the median.

## Part A

**5 9 2 5 4 7 3 0 1**

1. Write these numbers in order going from the lowest to highest.

**0 1 2 3 4 5 5 7 9**

2. Mark off the numbers at each end until only the one in the middle is left.

~~0~~ ~~1~~ ~~2~~ ~~3~~ **4** ~~5~~ ~~5~~ ~~7~~ ~~9~~

3. The median is the number in the middle. The median is 4.

What is the median of these numbers?

**18 21 14 9 17**

**139 427 683 11 4,571**

# Median Modeling

This is to be used as a transparency-teaching tool to model how to figure the median.

## Part B

**13 5 9 2 5 4 7 3 0 1**

1. Write these numbers in order going from the lowest to highest.

**0 1 2 3 4 5 5 7 9 13**

2. Mark off the numbers at each end until only the one in the middle is left.

~~0~~ ~~1~~ ~~2~~ ~~3~~ **4 5** ~~5~~ ~~7~~ ~~9~~ ~~13~~

3. The median is the number in the middle. But 4 and 5 are in the middle. To find the exact middle add  $4 + 5 = 9$ . Then because we are adding two numbers, divide by 2.  $9 / 2 = 4 \frac{1}{2}$  or 4.5 The median is 4.5.

What is the median of these numbers?

**5 8 3 4 8 6**

**12 4 6 8 11 15**

**16 5 27 6**

# Mode Modeling

This is to be used as a transparency-teaching tool to model how to figure the mode.

**13 5 9 2 5 4 7 3 0 1**

1. Write these numbers in order going from the lowest to highest.

**0 1 2 3 4 5 5 7 9 13**

2. Look for the number that is listed the most.
3. 5 is listed the most so 5 is the mode.

What is the mode of these numbers?

**5 8 3 4 8 6**

**11 4 6 4 11 15**

**16 5 27 16 72 16 5 27 16**

# Mean Modeling

This is to be used as a transparency-teaching tool to model how to figure the mean.

**13 5 9 2 5 4 8 3 0 1**

1. Add these numbers.

$$\mathbf{13 + 5 + 9 + 2 + 5 + 4 + 8 + 3 + 0 + 1 = 50}$$

2. Count the addends. There are 10 addends.
3. Divide the sum (50) by the number of addends (10).  $50 / 10 = 5$
4. The mean is 5.

What is the mean of these numbers?

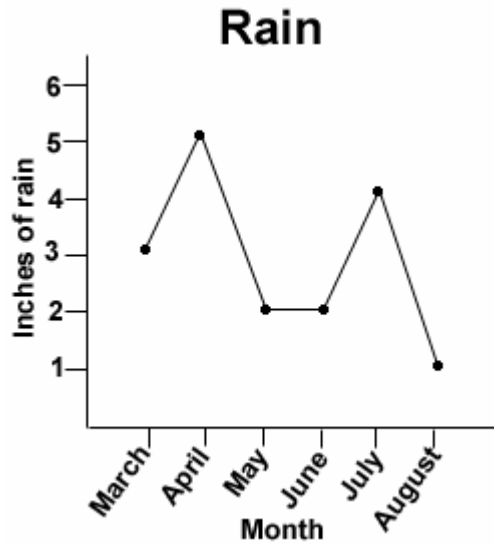
**5 8 3 4 9 7**

**11 4 2 6 4 9 13**

**6 5 3 10**

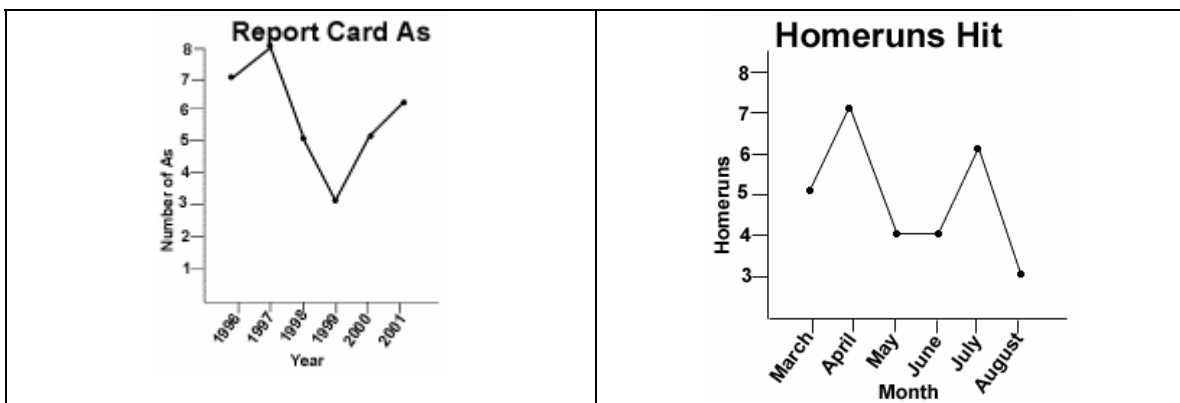
# Range Modeling

This is to be used as a transparency-teaching tool to model how to figure the range.



1. Use the scale on the side of the graph to find the lowest and highest numbers that have points on the line graph. On this graph, the lowest number that has a point is 1, and the highest number that has a point is 5.
2. Subtract the lowest number from the highest number. The difference is the range. The range is 4.

Find the range using these line graphs.



Find the range using this data.

Subtract the lowest number from the highest number.

**4 19 36 8 42 16 54**

# Mean and Range using a Calculator Modeling

This is to be used as a transparency-teaching tool to model how to figure the mean and range using a calculator.

## Mean

**1,268 5,873 164 7,200**

1. Add these numbers.

$$1,268 + 5,873 + 164 + 7,200 = 14,505$$

2. Count the addends. There are 4 addends.
3. Divide the sum (14,505) by the number of addends (4).  
 $14,505 / 4 = 3,626.25$
4. The mean is 3,626.25.

## Range

**Use the same numbers as above.**

1. Find the largest number. Subtract the smallest number.

$$7,200 - 164 = 7,036$$

2. The range is 7,036.

What is the mean and range of these numbers?

**5 8 3 4 9 7 11 9 2 7 3 8 6 9**

**10,573 8,662 12,594 9,321**

# Teacher Key to Modeling Transparencies

## Median Modeling – Part A

18 21 14 9 17 median is 17

139 427 683 11 4,571 median is 427

## Median Modeling – Part B

5 8 3 4 8 6 median is 5.5 or  $5\frac{1}{2}$

12 4 6 8 11 15 median is 10

16 5 27 6 median is 11

## Mode Modeling

5 8 3 4 8 6 mode is 8

11 4 6 4 11 15 two modes, 4 and 11

16 5 27 72 16 5 27 16 mode is 16

## Mean Modeling

5 8 3 4 9 7 mean is 6

11 4 2 6 4 9 13 mean is 7

6 5 3 10 mean is 6

## Range Modeling

Report Card As - range is 5

Homeruns Hit – range is 4

Data – range is 50

## Mean and Range with Calculator Modeling

5 8 3 4 9 7 11 9 2 7 3 8 6 9 mean is 6.5 range is 9

10,573 8,662 12,594 9,321 mean is 10,287.5 range is 3,932