# Learning Goal

# Re -cap

a) What is the range of the data in the table below?
b) Is this data categorical, discrete, or continuous?

kilometres travelled daily - Joe's car

| 58 | 71 | 86 | 50 | 70 | 60 |
|----|----|----|----|----|----|
| 67 | 69 | 55 | 95 | 89 | 59 |
| 56 | 93 | 83 | 72 | 54 | 60 |
| 92 | 81 | 86 | 66 | 82 | 96 |
|    |    |    |    | 58 | 70 |

Joe's car

How would you explain to someone how many km Joe normally travels in a day?

| 58 | 71 | 86 | 50 | 70 | 60 |
|----|----|----|----|----|----|
| 67 | 69 | 55 | 95 | 89 | 59 |
| 56 | 93 | 83 | 72 | 54 | 60 |
| 92 | 81 | 86 | 66 | 82 | 96 |
|    |    |    |    | 58 | 70 |

# Measures of Central Tendency

In statistics, there are

_____ measures of central tendency.

These measures allow us to find

_____ that exist in our data.


They are: _____

_____

_____

Measures of Central Tendency

# Mean

Most commonly referred to as

the _____.

**HOW TO:** _____ all of the values,

then _____ by the

_____.

# Measures of Central Tendency

## Mean

| 58 | 71 | 86 | 50 | 70 | 60 |
|----|----|----|----|----|----|
| 67 | 69 | 55 | 95 | 89 | 59 |
| 56 | 93 | 83 | 72 | 54 | 60 |
| 92 | 81 | 86 | 66 | 82 | 96 |
|    |    |    |    | 58 | 70 |

## Measures of Central Tendency

# Median

The _____ entry in an ordered list.
(Think of the median on the highway)

**HOW TO:**

a) If you have an _____ number of

values it is the _____ value.

b) If you have an _____ number

of values, it is the _____ of the

_____ values.

# Measures of Central Tendency

## Median

| 50 | 59 | 70 | 83 | 95 |
|----|----|----|----|----|
| 54 | 60 | 70 | 86 | 96 |
| 55 | 60 | 71 | 86 |    |
| 56 | 66 | 72 | 89 |    |
| 58 | 67 | 81 | 92 |    |
| 58 | 69 | 82 | 93 |    |

# Mode

The most _____ number

in a data set.


There can be _____

mode, or even _____ mode.


Easiest to find in an _____

list.

# Measures of Central Tendency

## Mode

| | | | | |
|---|---|---|---|---|
| 50 | 59 | 70 | 83 | 95 |
| 54 | 60 | 70 | 86 | 96 |
| 55 | 60 | 71 | 86 | |
| 56 | 66 | 72 | 89 | |
| 58 | 67 | 81 | 92 | |
| 58 | 69 | 82 | 93 | |

# Measures of Central Tendency

## When are they useful?

**Mean**

**Median**

**Mode**

# The Mean, Median and Mode of a Distribution

## Normal Distribution

# The Mean, Median and Mode of a Distribution

Bimodal Distribution

# The Mean, Median and Mode of a Distribution

**Uniform Distribution**

# The Mean, Median and Mode of a Distribution

Left-Skewed Distribution

# The Mean, Median and Mode of a Distribution

## Right-Skewed Distribution



Right-Skewed Distribution