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## mashummath

## Exploring Mean, Median, Mode, and Range



Deck of Playing Cards (Jokers Removed), Pens \& Pencils, Paper, Calculator

## How Does This Activity Work?

Start by drawing 7 cards from your deck of playing cards and arrange them in order from least to greatest.

Note: Aces equal 1 and Face Cards equal 10.


Step One: Find the Mean
To find the mean of a set of numbers, add all the values together and divide by the number of values in the set.

$$
\begin{gathered}
1+2+3+5+5+7+8=31 \\
31 \div 7=4.42857142857 \ldots
\end{gathered}
$$

The mean is approximately 4.4.

Step Two: Find the Median
To find the median of a set of numbers, arrange the values in order from least to greatest and find the middlemost number. If there is an even number of items in the set, then the median is found by taking the mean (average) of the two middlemost numbers.


## The median is 5 .

Step Three: Find the Mode
To find the mode of a set of numbers, find the value that occurs most frequently. Note that data sets can have more than one mode or no mode.


The mode is 5 .

Step Four: Find the Range
To find the range of a set of numbers, find the difference between the highest and lowest values.


The range is 7.

Now it's your turn to explore!

## Round 1: Draw 7 Cards


1.) Find the Mean:

2.) Find the Median:
3.) Find the Mode:

4.) Find the Range:

## Round 2: Draw 8 Cards


1.) Find the Mean:
2.) Find the Median:

3.) Find the Mode:

4.) Find the Range:

## Round 3: Draw 9 Cards


1.) Find the Mean:
2.) Find the Median:
3.) Find the Mode:

4.) Find the Range:

## Round 4: Draw 10 Cards


1.) Find the Mean:
2.) Find the Median:
3.) Find the Mode:
4.) Find the Range:

## Round 5: BONUS!

## Can you find the mean, median, mode, and range of a entire deck of 52 playing cards?

1.) Find the Mean:
2.) Find the Median:

3.) Find the Mode:
4.) Find the Range:

