Measures of Center - a # that describes the center of the data set.

Element - a member of the data set.

Ten people were asked, "How many days do you exercise each week?"
Their responses: 4, 5, 6, 4, 4, 5, 1, 5, 3, 3

ascending order: {1, 3, 3, 4, 4, 4, 5, 5, 5, 6}

measures of center

mean $(x_1 + x_2 + \ldots + x_n)/n$

1. Sum the elements.
2. Divide the sum by the number of elements.

Mean - the average of the elements of the data set.

1 - Add the #s

2 - Divide by the # of #s

1+3+3+4+4+4+5+5+5+6 = 40

$\frac{40}{10}$ = 4 days a week

median

1. Put the numbers in ascending order.
2. Starting on the outside numbers, count inwards until you reach the middle number.
3. **The middle number is the median.**
4. If there are two middle numbers, take the average of those numbers to find the median.

(4)

1, 3, 3, 4, [4, 4] 5, 5, 5, 6

Use median when there are outliers!

mode

1. Put the elements in ascending order.
2. Identify the most common element(s).

1, 3, 3, 4, 4, 4, 5, 5, 5, 6 (4 and 5)

- There can be more than 1
- There can be no mode,