

Averages

Mean (Arithmetic Average)	Example 1	Example 2
<p style="text-align: center;">$\text{Mean} = \frac{\text{sum}}{n},$</p> <p>To get sum, add up the values for all objects</p> <p>n = the number of objects</p>	<p>Find the average of 80, 90, 76</p> $\frac{80 + 90 + 76}{3} = \frac{246}{3}$ <p style="text-align: center;">= 82</p>	<p>One day a supermarket received a delivery of 25 frozen turkeys. If the average (arithmetic mean) weight of a turkey was 14.2 pounds, what was the total weight, in pounds, of all the turkeys?</p> <p style="text-align: center;"><i>Total weight</i> <i># of turkeys</i> = <i>avg. weight</i></p> $\frac{x}{25} = 14.2$ <p style="text-align: center;">$X = 25 \times 14.2 = 355$</p>
Median	Example 3 (Odd number of numbers)	Example 4 (Even number of numbers)
<p>Rank numbers from lowest to highest and find the middle number.</p> <p>n = the number of numbers</p> <p>The rank of the middle number is (odd)</p> $\frac{n + 1}{2}$	<p style="text-align: center;">7,23,5,31,22 → 5,7,22,23,31</p> <p>n = 5</p> <p>Rank of middle number is $\frac{5+1}{2} = 3$ (the third number)</p> <p>The number is 22, which is the median.</p>	<p style="text-align: center;">7,23,5,31,22,17 → 5,7,17,22,23,31</p> <p>n = 6</p> <p>Rank of middle number is $\frac{6+1}{2} = 3.5$ (between third and fourth numbers)</p> <p>Therefore take average of the third and fourth numbers</p> $\frac{17+22}{2} = \text{median} = 19.5$
Mode	Example 5	Example 6
<p>The mode is the number in the set that occurs most often</p>	<p style="text-align: center;">9,9,3,5,7,5,9,2</p> <p>9 appears the most in the set</p> <p style="text-align: center;">mode = 9</p>	<p style="text-align: center;">14,3,22,5,7,7,3,1</p> <p>3 & 7 appear the most</p> <p style="text-align: center;">modes = 3,7</p>