

# Data Analysis: Circle Graphs & Central Tendency

Data:	Analysis Example:
<p style="text-align: center;"><b>Favorite Fruits</b></p> <p style="text-align: center;">Total number of people surveyed: <u>32</u></p>	<p>How many people like bananas?</p> <p>Method 1:</p> <p>25% of 32  <math>\cdot 25 \times 32 = 8 \text{ people}</math></p> <p>Method 2:</p> <p><math>\frac{25}{100} = \frac{8 \text{ people}}{32}</math></p> <p>SF: <math>32 \div 100 = .32</math></p>

Measures of Central Tendency: Example data: 10, 3, 7, 4

<p><b>Mean (or average):</b></p> <p><math>10 + 3 + 7 + 4 = 24</math>  <math>24 \div 4 = 6</math></p> <p><u>Sum</u>  <u>divide</u> of all data values, then  by number of <u>data values</u></p>	<p><b>Median:</b></p> <p><math>3, 4, 7, 10</math></p> <p><math>7 + 4 = 11</math>  <math>11 \div 2 = 5.5</math></p> <p>↑ Add then, divide 2</p> <p><u>Middle</u> number when data values are  arranged <u>smallest to largest</u></p>
<p><b>Range:</b></p> <p><math>10 - 3 = 7</math></p> <p>maximum - minimum  <u>biggest - smallest</u></p>	<p><b>Mode:</b></p> <p>None in this data</p> <p>Most common data value</p>

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Owen has already bowled 3 games at his bowling tournament. Here are his 3 scores: 115, 140, and 137. He has one more game to bowl, and he wants his average score for the day to be 130. What does his last score need to be to *mean* → make this happen?

	1	2	3	4	Total
Have	115	+140	+137	+128	392
Want	130	+130	+130	+130	520

$$520 - 392 = 128$$

