



# Year 8 - Term 2 - Kemnal Keys



Unit 4: Statistics, Graphs and Charts	Unit 5: Decimals and Calculations
<ul style="list-style-type: none"> <li>A <b>pie chart</b> is a circle divided into slices called <b>sectors</b>. Each sector represents a set of data.</li> <li>For pie charts can use <b>degrees</b> or <b>frequency</b>, to find the angle for each sector. The total will always be <b>360°</b>.</li> </ul>	<ul style="list-style-type: none"> <li>To divide by a decimal, multiply both numbers by a power of 10 (10, 100, ...) until you have a whole number to divide by. Then work out the division.</li> </ul>
<ul style="list-style-type: none"> <li>A <b>two-way table</b> divides data into groups in rows across the table and in columns down the table. You can calculate the totals across and down.</li> <li>The <b>class</b> <math>4 \leq l &lt; 6</math> cm includes all values of <math>l</math> from <math>l = 4</math> cm up to, but not including <math>l = 6</math> cm.</li> </ul>	<ul style="list-style-type: none"> <li>A number rounded to <b>2 decimal places</b> (2 dp) has <b>two digits</b> after the decimal point.</li> <li>A number rounded to <b>3 decimal places</b> (3 dp) has <b>three digits</b> after the decimal point.</li> </ul>
<ul style="list-style-type: none"> <li><b>Statistics</b> are values that represent data. <b>Mean, Median, Mode</b> and Range are statistics.</li> <li><b>Range</b> refers to the difference between your smallest and largest value.</li> <li>A small <b>range</b> shows that the data items are close together. This means the data is more <b>consistent</b>.</li> </ul>	<ul style="list-style-type: none"> <li>For rounding to 2 decimal places, look at the thousandth (the third decimal place).               <ul style="list-style-type: none"> <li>- 5 thousandths and above, round up.</li> <li>- 4 thousandths and below, round down.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>The <b>Mean</b> refers to all of your values added together, divided by the amount of values.</li> <li>The <b>Median</b> refers to your middle value, if your data is ordered.</li> <li>The <b>Mode</b> is the value with the highest <b>frequency</b> (most common value).</li> <li>An extreme value that doesn't fit the pattern of the other values is called an <b>outlier</b>.</li> </ul>	<ul style="list-style-type: none"> <li>You can round numbers to a certain number of <b>significant figures</b> (s.f.). It is the first non-zero digit in the number, counting from the left.</li> <li>The amount of significant figures you need to round to, will determine how many non-zero digits you will have in your rounded number. <b>Replace</b> all other numbers with 0.</li> </ul>
<ul style="list-style-type: none"> <li>Before you read values from a graph or chart,               <ul style="list-style-type: none"> <li>- read the <b>title</b>,</li> <li>- read the <b>axis labels</b>,</li> <li>- read the <b>scales</b>.</li> </ul> </li> <li>You cannot draw <b>conclusions</b> from an <b>inaccurate graph</b>.</li> </ul>	<ul style="list-style-type: none"> <li>When <b>comparing</b> the size of decimals, first compare the whole number parts.               <ul style="list-style-type: none"> <li>- Then, if they are equal, compare the tenths.</li> <li>- Then, if they are equal, compare the hundredths.</li> <li>- Continue like this for the thousandths, ten thousandths, hundred thousandths, and so forth.</li> </ul> </li> </ul>

# Quiz Time

## Week 1 Quiz

1. What are the slices of data in a pie chart called?
2. How do you multiply variables with the same bases?
3. What is the HCF of two numbers?
4. If you have the angles for all sectors in a pie chart, how many degrees are there?
5. What are the factors of 36?

## Week 2 Quiz

1. In which directions can you calculate the totals in a two-way table?
2. What is the range of set of data?
3. What is the LCM of two numbers?
4. Name three examples of statistics.
5. What are the prime factors of 36?

## Week 3 Quiz

1. How do you calculate the mean of a set of data?
2. What is the mode of a set of data?
3. What values does a class of  $20 \leq l < 30$  cm include?
4. How can you tell if a set of data is consistent?
5. What 3 things do you need to read before you try to read the values from a graph?

## Week 4 Quiz

1. How do you divide by a decimal?
2. How do you find the median of a set of data?
3. How many digits are there after the decimal point if a number has been rounded to 3 d.p.?
4. What do you call an extreme value that doesn't match the others?
5. What can you not do from an inaccurate graph?

## Week 5 Quiz

1. What are the steps to round a number to 2 decimal places?
2. What values does a class of  $50 \leq l < 65$  m include?
3. What does a sector represent in a pie chart?
4. What is the mode of 1, 1, 2, 4, 5, 6, 9, 9, 9?
5. How many digits are there after the decimal point if a number has been rounded to 1 d.p.?

## Week 6 Quiz

1. What is the first significant figure of a number?
2. What are the steps to round a number to 1 decimal place?
3. How do you compare two decimal numbers?
4. What is the range of 3, 4, 7, 10, 12, 15, 16?
5. Which number is larger, 0.4506 or 0.4513?