



# Year 8 Maths Homework Menu: HT6

For each unit (column) you must choose one take away item for homework. The chilli rating suggests the difficulty of the task, or the challenge it might offer. Choose your homework from the menu below. The extra hot tasks will gain the most bonus points. You can earn an extra bonus point for putting in maximum effort. Your teacher will set your deadline and how you should submit your work.

				Averages	Pie Charts	Scatter Graphs	
65 	More advanced thinking skills 	REASONING	Creating	6	Conduct a survey or collect secondary data to investigate differences between two different groups. E.g Number of goals scored by players of Leeds Utd. versus Bradford City. Calculate the mean, mode, median and range of both of your data sets. Write a conclusion.	Conduct a survey to compare the preferences of two different groups (e.g favourite foods, adults versus children) – present your findings in two pie charts. Write a conclusion.	Conduct a survey or collect secondary data to investigate the correlation between two variables. (e.g. goals scored in a season versus salary of football players). Plot a scatter graph and describe what you have found out.
		REASONING	Evaluating	5	Conduct a survey or collect secondary data to investigate differences between the number of goals scored by players of Leeds Utd. versus Bradford City last year. Calculate the mean, mode, median and range of both of your data sets. Write a conclusion.	Conduct a survey to compare the preferences of favourite soft drinks of adults versus children – present your findings in two pie charts. Write a conclusion.	Find data on the goals scored by the top 10 scorers in the premium league last season and the salaries of each player. Plot a scatter graph and describe what you have found out.
		PROBLEM SOLVING	Analysing	4	From the numbers: 3,9,3,5,5,6,7,1  Choose 4 Numbers with a;	Draw a pie chart and an bar chart of the following data;	What is the difference between correlation and causation?



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					<ul style="list-style-type: none"> <li>a) Median of 4</li> <li>b) Mode of 4, median of 4</li> <li>c) Mode of 3, Mean of 3</li> <li>d) Median of 5, Mean of 5</li> <li>e) Mean of 5, Median of 8</li> <li>f) Mode of 5, Median of 6</li> </ul>	Van Colour - Freq. Red - 3 Black - 5 White - 7 Blue - 2 Other - 1	Give two example of things that will have; <ul style="list-style-type: none"> <li>a) A positive correlation</li> <li>b) Negative Correlations</li> <li>c) No correlation</li> <li>d) A positive correlation but no causal link.</li> </ul>																									
Thinking skills  	<b>PROBLEM SOLVING</b>	<b>Applying</b>	<b>3</b>	From the numbers: 3,9,3,5,5,6,7,1 Chose 3 numbers with a; <ul style="list-style-type: none"> <li>a) Mode of 5</li> <li>b) Median of 7</li> <li>c) Mode of 3, Range of 3</li> <li>d) No mode, Median of 5</li> <li>e) Mean of 5, Median of 3</li> <li>f) Mean of 7, Range of 7</li> </ul>	Mymaths 1250	Mymaths 1207																										
	<b>FLUENCY</b>	<b>Understanding</b>	<b>2</b>	3,9,3,5,5,6,7,1,5  Calculate the mean, mode, median and range of this data.	Draw a pie chart to show; Van Colour - Freq. Red - 2 Black - 4 White - 8 Blue - 1 Other - 1	Draw a scatter chart to compare test scores; <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Maths</th> <th style="text-align: center;">-</th> <th style="text-align: right;">English</th> </tr> </thead> <tbody> <tr><td>63</td><td style="text-align: center;">-</td><td>65</td></tr> <tr><td>88</td><td style="text-align: center;">-</td><td>43</td></tr> <tr><td>79</td><td style="text-align: center;">-</td><td>72</td></tr> <tr><td>45</td><td style="text-align: center;">-</td><td>56</td></tr> <tr><td>51</td><td style="text-align: center;">-</td><td>50</td></tr> <tr><td>98</td><td style="text-align: center;">-</td><td>82</td></tr> <tr><td>76</td><td style="text-align: center;">-</td><td>56</td></tr> <tr><td>45</td><td style="text-align: center;">-</td><td>55</td></tr> </tbody> </table>	Maths	-	English	63	-	65	88	-	43	79	-	72	45	-	56	51	-	50	98	-	82	76	-	56	45	-
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		FLUENCY	Remembering	1	Make a revision poster explaining how to find the mean, mode, median and range.	Mymaths 1213	Mymaths 1206
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