


MATHS KNOWLEDGE ORGANISER – YEAR 8 TERM 1

	Topic	Information	Example	Hegarty clip
1	Percentage	Number of parts per 100.	31% means $\frac{31}{100}$	81
2	Simple Interest	Interest calculated as a percentage of the original amount.	£1000 invested for 3 years at 10% simple interest. 10% of £1000 = £100 Interest = $3 \times £100 = £300$	93
3	Increase or Decrease by a Percentage	Non-calculator: Find the percentage and add or subtract it from the original amount. Calculator: Find the percentage multiplier and multiply.	<u>Increase 500 by 20% (Non Calc):</u> 10% of 500 = 50 so 20% of 500 = 100 500 + 100 = 600 <u>Decrease 800 by 17% (Calc):</u> 100% - 17% = 83% 83% \div 100 = 0.83 0.83 x 800 = 664	84-90
4	Percentage Multiplier	The number you multiply a quantity by to increase or decrease it by a percentage.	The multiplier for increasing by 12% is 1.12 The multiplier for decreasing by 12% is 0.88	
5	Ratio	Ratio compares the size of one part to another part. Written using the : symbol.	3 : 1 	328-334
6	Simplifying Ratios	Divide all parts of the ratio by a common factor.	5 : 10 = 1 : 2 (divide both by 5) 14 : 21 = 2 : 3 (divide both by 7)	