| Ratio | Ratio compares the size of one part to another part. <br> Written using the ':' symbol. | $3: 1$ |
| :---: | :---: | :---: |
| Proportion | Proportion compares the size of one part to the size of the whole. <br> Usually written as a fraction. | In a class with 13 boys and 9 girls, the proportion of boys is $\frac{13}{22}$ and the proportion of girls is $\frac{9}{22}$ |
| Simplifying Ratios | Divide all parts of the ratio by a common factor. | $5: 10=1: 2$ (divide both by 5) <br> $14: 21=2: 3$ (divide both by 7) |
| Ratios in the form $1: n$ or $n$ : 1 | Divide both parts of the ratio by one of the numbers to make one part equal 1. | $5: 7=1: \frac{7}{5}$ in the form $1: n$ <br> $5: 7=\frac{5}{7}: 1$ in the form $n: 1$ |
| Sharing in a Ratio | 1. Add the total parts of the ratio. <br> 2. Divide the amount to be shared by this value to find the value of one part. <br> 3. Multiply this value by each part of the ratio. <br> Use only if you know the total. | Share $£ 60$ in the ratio $3: 2: 1$. $\begin{aligned} & 3+2+1=6 \\ & 60 \div 6=10 \\ & 3 \times 10=30,2 \times 10=20,1 \times 10=10 \\ & £ 30: £ 20: £ 10 \end{aligned}$ |
| Ratio already shared | Find what one part of the ratio is worth using the unitary method. | Money was shared in the ratio 3:2:5 between Ann, Bob and Cat. Given that Bob had $£ 16$, found out the total amount of money shared. <br> £16 = 2 parts <br> So $£ 8=1$ part <br> $3+2+5=10$ parts, so $8 \times 10=£ 80$ |

