



## **Ratio and Proportion**

| Ratio and Proportion  |  |  |
|-----------------------|--|--|
| Other Year Groups     | Year 6   |  |
|                       | Solve problems involving the relative sizes of two quantities where missing values can be found by using number multiplication and division facts.   |  |
|                       | What else do you know?   |  |
|                       | In a flower bed a gardener plants 3 red bulbs for every 4 white bulbs. How many red and white bulbs might he plant?<br>If she has 100 white bulbs, how many red bulbs does she need to buy?<br>If she has 75 red bulbs, how many white bulbs does she need to buy? |  |
|                       | If she wants to plant 140 bulbs altogether, how many of each colour should she buy?  |  |
|                       | Do, then explain:  |  |
|                       | Purple paint is made from read and blue paint in the ratio of 3:5.   |  |
|                       | To make 40 litres of purple paint how much would I need of each colour? Explain your thinking.   |  |
| Whilst ratio and      | Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison.  |  |
| proportion            | What else do you know?   |  |
| statements only       | 88% of a sum of money = $\pounds$ 242. Make up some other statements.  |  |
| appear in Yr 6 skills | Write real life problems for your number sentences.  |  |
| and components        | <b>Undoing</b><br>I think of a number and then reduce it by 15%. The number I end up with is 306. What was my original number?   |  |
| can be connected      | In a sale where everything is reduced by 15%. The humber rend up with is 500, what was my original humber is in a sale where everything is reduced by 15%. I paid the following prices for three items.  |  |
| through previous      | £255, £850, £4.25  |  |
| learning. This is     | What was the original selling price?   |  |
| particularly          | Solve problems involving similar shapes where the scale factor is known or can be found.   |  |
| relevant within       | Unpicking  |  |
| fractions,            | A recipe needs to include three times as much apple than peach. The total weight of apples and peaches   |  |
| multiplication and    | in a recipe is 700 grammes. How much apple do I need?  |  |
| division.             | Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.  |  |
|                       | <b>Other possibilities</b><br>A 50 seater coach travels to the match. Most of the seats are taken.   |  |
|                       | Junior tickets cost £13 and Adult tickets cost £23.  |  |
|                       |  |  |





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The only people on the coach are Juniors and Adults. The total amount paid for tickets is approximately £900 How many people on the coach were adults and how many were juniors?

| Vocabulary               |        |  |  |
|--------------------------|--------|--|--|
|                          | Year 6 |  |  |
| quantities               |        |  |  |
| quantities<br>comparison |        |  |  |
| scale                    |        |  |  |
| scale<br>scale factor    |        |  |  |
| proportion               |        |  |  |
| proportion<br>ratio      |        |  |  |