

## Guidance

### Missing Number Questions

Missing number questions assess understanding of formal calculation methods.

In this simple example:

$$\begin{array}{r}
 5 \quad \square \\
 + \quad \square \quad 4 \\
 \hline
 8 \quad 3
 \end{array}$$

A number added to 4 gives an answer that ends in 3, so  $\_ + 4 = 13$ , so the missing number is 9.

5 added to a number add the regrouped 1 (ten) gives the answer 8, so the missing number is 2.

$$\begin{array}{r}
 5 \quad 9 \\
 + \quad 2 \quad 4 \\
 \hline
 8 \quad 3
 \end{array}$$

Here are some more missing number questions.

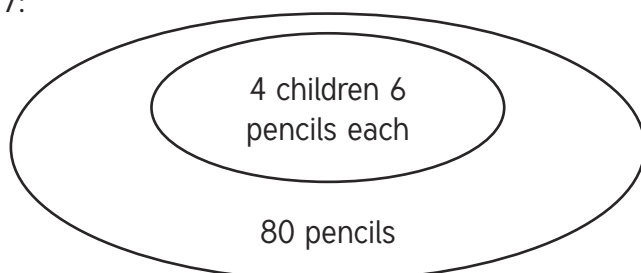
<http://www.twinkl.co.uk/resource/t2-m-1498-ks2-reasoning-test-practice-missing-number-calculations-bumper-resource-pack>

### Word Questions

There are two parts to solving word questions. Firstly to understand the question and decide the calculations needed, and secondly to complete the required calculations.

Sometimes it can help to visualize the question.

For example Q7:



There are 80 pencils. From these 80 pencils, 4 lots of 6 pencils are taken.

The calculation could be written  $80 - 6 \times 4$ , solved as  $80 - 24 = 56$ .

Children don't need to write the calculation in the above form, but they need to calculate that there are 24 pencils given to the 4 children and the answer is  $80 - 24 = 56$ .

There are also questions like Q9, where the answer can be found by reversing the calculations to find the starting number.

The question starts with an unknown number:

The number is halved and 15 is added. The result is divided by 3, giving an answer of 19.

Reversing gives:  $19 \times 3 = 57$ ,  $57 - 15 = 42$ ,  $42 \times 2 = 84$

Full marks are given for the correct answer, but sometimes a mark will be given for a correct method where a mistake is made in the calculating. It is therefore important for children to show how they have calculated an answer.

More word problems are available in this resource:

<http://www.twinkl.co.uk/resource/t2-m-1660-ks2-reasoning-test-practice-large-number-multi-step-word-problem-resource-pack>