

## Activity:

The aim of this activity is for children to practise identifying the whole number when a fraction, or part, of this number is given. Children must choose a selection of numbers to complete the fraction crossword. They must check their answers carefully as some may not work with all given fractions. You may need to encourage children to use trial and error to find the first number that will work to complete the crossword. Once they have found this, they will be able to work their way through the rest of the crossword.

## Vocabulary:

To **calculate quantities**, you must find the whole from a given part. To do this, you must first divide the part by the **numerator** to find the value of the **unit fraction**. This number must then be multiplied by the **denominator** to find the whole. For example: if  $\frac{3}{7}$  of a number is 21, you must divide 21 (the part) by 3 (the **numerator**) which equals 7. To find the whole, you multiply 7 (the **unit fraction**) by 7 (the **denominator**) which is 49. The completed calculation is written as  $\frac{3}{7}$  of 49 = 21.

A **unit fraction** is a fraction where the numerator is 1. For example:  $\frac{1}{4}$ .

The **numerator** and **denominator** are the parts of a fraction. The **numerator** is the number above the line in a fraction and it indicates the number of parts out of the whole there are. The **denominator** is the number below the line in a fraction and it indicates how many equal parts a whole has been divided into.

**Trial and error** is the name given to a problem-solving method which involves trying various calculations and seeing their results. These results directly help in reaching the final answer.

## Supporting resources:

You can watch a video tutorial about calculating quantities on [kids.classroomsecrets.co.uk](https://www.kids.classroomsecrets.co.uk) >> **Year 4 >> Maths >> Fractions >> Video Tutorials**.

You can watch the answer explanation video which takes children through this activity and ways to answer it on <https://www.youtube.com/user/ClassroomSecretsLtd/> **playlists >> Year 4 Playlist >> Calculate Quantities Answer Explanation**.

## Other resources:

If your child enjoyed this activity and wants to try more activities linked to this learning, you can sign up for £4.83 per month on [kids.classroomsecrets.co.uk/membership](https://www.kids.classroomsecrets.co.uk/membership).

**Check out our daily timetable for Year 4 home learning activities on [kids.classroomsecrets.co.uk](https://www.kids.classroomsecrets.co.uk) >> Home Learning Timetable.**

# Calculate Quantities

Complete the fraction crossword below using the clue to help you find the starting number.

$$\frac{3}{7} \text{ of } \boxed{1.} = \boxed{2.} = \frac{5}{9} \text{ of } \boxed{3.}$$
$$=$$
$$\frac{3}{8}$$

of

$$\frac{8}{14} \text{ of } \boxed{4.} = \boxed{5.} = \frac{4}{11} \text{ of } \boxed{6.}$$

Box number 1 is a multiple of 5.

Is there more than one possible solution to the crossword?

There are various answers to this problem, two examples are given below.

$$\frac{3}{7} \text{ of } \boxed{1. 35} = \boxed{2. 15} = \frac{5}{9} \text{ of } \boxed{3. 27}$$
$$=$$
$$\frac{3}{8}$$

of

$$\frac{8}{14} \text{ of } \boxed{4. 70} = \boxed{5. 40} = \frac{4}{11} \text{ of } \boxed{6. 110}$$

$$\frac{3}{7} \text{ of } \boxed{1. 105} = \boxed{2. 45} = \frac{5}{9} \text{ of } \boxed{3. 81}$$
$$=$$
$$\frac{3}{8}$$

of

$$\frac{8}{14} \text{ of } \boxed{4. 210} = \boxed{5. 120} = \frac{4}{11} \text{ of } \boxed{6. 330}$$