Start

Working out the Take the challenge section.

Tell ss to use multiplication tables information to complete the questions.

Tell ss that the missing numbers were the factors they needed to complete the activity, and then ask them to explain, in L1, what a factor is.

Use ss' ideas to write the final conclusion on the board so ss can see and copy it in their books.

During

Get some ss reading the explanation – tell them to highlight the following information (using different colours)…

- **Factors are whole numbers that will divide exactly into other whole numbers.**

- **A number which is a factor or two or more given numbers is called "The common factor of the number given."**

Write the factors of the numbers given and explain why they are their factors.

- **1 x 60 = 60**
- **2 x 30 = 60**
- **3 x 20 = 60**
- **4 x 15 = 60**
- **etc.**

Ask ss to spot the common factors, and then ask them to circle the highest one – remind ss about writing the missing information on page 8.

Ss read the explanation at the bottom of the page – guide them through finding the two numbers that have only two factors (2 - 3).

"There is another factor of 12 (6), but what we want ss to identify is the prime numbers."

Write the first set of numbers on the board and elicit the factors, then get ss spotting the common ones, and finally circle the highest common one.

Do the same with the other three sets – once you have checked it's all correct, let ss copy / write it in their books.

Tell ss that identifying prime factors can be done by using a tool that is called "a factor-tree."

Do the example factor-tree for the number 36 on the board…

$$18 \times 2 = 36$$
$$9 \times 2 = 18$$
$$3 \times 3 = 9$$

…then write the other number examples…

- $2 \times 2 \times 3 \times 3 = 36$
- $2^2 \times 3^3 = 4 \times 9 = 36$
- 36

… finally get ss copying / writing the information in their books.

End

Divide the class into small groups. Each group will be in charge of working out one factor-tree.

While ss work, T divides the board into six sections and writes the given number for each.

Invite one kid form each team to draw / write on the board and to present the factor tree to the class.

Tell ss to copy / draw and write the answers in their books, but it must be done after the last team has presented their work.

It is time for you to decide on the notes for ss to write.

It could be some concept definitions, such as…

- **factor**
- **common factor**
- **highest common factor**
- **prime factor**
- **factor-tree**
- **etc.**

Just remember that ss are the ones who must create the concept definition; if they want to do it in L1, it is ok, but don't forget to use their ideas to write the conclusions / definitions in English.