

Maths skills – Follow on from live lesson

Learning objective: to multiply and divide by 10, 100, 1000.

Warm up- Place values?

Can you name these place values with their vowels removed?

T ns

n s

Th s nds

M ll ns

H ndr ths

Copy them into your books with the correct spelling.

Recap

- When multiplying and dividing by a multiple of 10 (10, 100, 1000) we need to move the digits to the left or right in their place values.
- The digits do not change order, they must all move left or right.
- A digit is an individual number such as 1, the number 362 has three digits.
- If you have a gap in one of the place values after multiplying or dividing you need to insert a place value holder (0).
- Multiplying moves the digits left (getting larger).
- Dividing moves the digits right (getting smaller).
- Digits may need to move past the decimal point creating decimal numbers.
- The order of the digits will not change just their position.

Video recap

- Here are 2 video links to help support this method.
- The first is from the BBC it gives a short explanation, great if you would like a brief reminder. Feel free to attempt the quiz and follow the bitesize lesson.

<https://www.bbc.co.uk/bitesize/articles/z7r492p>

The second video is in much greater detail from Corbett maths. It will explain the methods in great detail. If needed, use this to remind yourself while you attempt the questions.

https://www.youtube.com/watch?v=csY3fy_CTLs

Fluency

copy and complete in your book

1*

$5 \times 10 = \underline{\quad}$

$5 \div 10 = \underline{\quad}$

$6 \times 100 = \underline{\quad}$

$8 \div 10 = \underline{\quad}$

$7 \div 10 = \underline{\quad}$

$7 \times 100 = \underline{\quad}$

$4 \times 10 = \underline{\quad}$

$8 \times 10 = \underline{\quad}$

$34 \times 10 = \underline{\quad}$

$65 \div 10 = \underline{\quad}$

$65 \times 100 = \underline{\quad}$

$42 \div 10 = \underline{\quad}$

$53 \div 10 = \underline{\quad}$

$17 \times 100 = \underline{\quad}$

$87 \times 10 = \underline{\quad}$

$453 \times 10 = \underline{\quad}$

$785 \div 100 = \underline{\quad}$

$34 \times 100 = \underline{\quad}$

2*

$874 \times 10 = \underline{\quad}$

$2264 \div 10 = \underline{\quad}$

$275 \times 100 = \underline{\quad}$

$765 \div 10 = \underline{\quad}$

$3873 \div 10 = \underline{\quad}$

$817 \times 100 = \underline{\quad}$

$673 \times 10 = \underline{\quad}$

$734 \times 10 = \underline{\quad}$

$3802 \div 100 = \underline{\quad}$

$403 \times 100 = \underline{\quad}$

3*

Reasoning-

1. use your knowledge of the method to spot the mistakes and correct these questions.
2. decide which of the questions would **multiply** by 100 to solve, think about the language used in each question.
3. give real life examples of the question thinking about how it would look at a word problem.

Multiply and Divide by 10, 100 and 1000

Correct the calculations that are incorrect:

$$34 \times 10 = 340$$

$$0.6 \times 10 = 60$$

$$5.7 \times 10 = 57$$

$$0.003 \times \times 10 = 0.3$$

$$8900 \times 10 = 890$$

$$902 \times 10 = 9200$$

$$8.03 \times 10 = 80.3$$

Multiply and Divide by 10, 100 and 1000

Here is a calculation:

$$0.04 \times 1000 =$$

Calculate the answer.

Give two different real life examples where this calculation would be used to give the answer.

Explain how to calculate the answer.

Multiply and Divide by 10, 100 and 1000

In which of these problems will the answer be found by multiplying by 100. Calculate the answers.

1. 100 children are each given £1.20. How much money is given out altogether?
2. At a school disco, there are 34 litres of lemonade. The 100 children at the disco are each given an equal share. How much lemonade does each child receive?
3. Some children lay 100 pencils in a long line. Each pencil is 0.14m long. What is the length of the line of pencils?

Plenary – test based questions

These questions have been taken from a year 5 assessment.
How confident would you feel at answering them?

13

$23 \times 100 =$

A large grid for working out the answer to question 13. The grid is 20 columns wide and 15 rows high. A rectangular box is drawn at the bottom right of the grid, spanning approximately 10 columns and 2 rows.

1 mark

20

$1.2 \times 1000 =$

A large grid for working out the answer to question 20. The grid is 20 columns wide and 15 rows high. A rectangular box is drawn on the right side of the grid, spanning approximately 5 columns and 3 rows.

1 mark