

FIND THE VIEWS

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths

x 10

x 100

x 1000

÷ 10

÷ 100

÷ 1000

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths

x 10

x 100

x 1000

÷ 10

÷ 100

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x 10

x 100

x 1000

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÷ 100

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FIND THE VIEWS CONTINUED

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Instructions

- 1 Write each of these numbers in the top row of one of the charts.
Use a separate chart for each number.
856 43 8.7 2.95 17.04 0.042

Multiply the number by 10, 100 and 1000 and divide it by 10, 100, 1000.
Under the original number write the answers to all six calculations for that number.
- 2 What happens to each digit when you multiply a number by
i 10? ii by 100? iii by 1000?
Does the number get bigger or smaller?
- 3 What happens to each digit when you divide a number by
10? by 100? by 1000?
Does the number get bigger or smaller?
- 4 Write some rules for how to multiply and divide by 10, 100, 1000. Make sure your rules work for both whole numbers and decimals.
- 5 What rules would you use if you wanted to
i multiply by 10 000?
ii divide by 10 000?
- 6 Summarise your rules on tables, one for multiplication and one for division.
What patterns to you notice?
- 7 **Challenge**
Use the patterns in your table to write a rule for multiplying and dividing by 0.1 ($\frac{1}{10}$).
Add these rules to your tables.
How are dividing by 10 and multiplying by 0.1 related?
How are multiplying by 10 and dividing by 0.1 related?