

Year 4 Maths, 4/3/21

RECALL

If we divide numbers by 100, we split them into 100 equal parts, or make them 100 times smaller. Let's see how this looks using a place value grid.

$$300 \div 100 = 3$$

hundreds	tens	ones	tenths	hundredths
● ● ●			●	

When we divide by 100, we move the digits two columns to the right.

hundreds	tens	ones	tenths	hundredths
		● ● ●	●	

$$\begin{array}{r} 300 \\ \downarrow \\ \div 100 \\ \downarrow \\ = 3 \end{array}$$

RECALL

We can use the same method to divide any number by 100, even if the answer is a decimal number.

$$3 \div 100 = 0.03$$

hundreds	tens	ones	tenths	hundredths
		● ● ● ● ●	●	

When we divide by 100, we move the digits two columns to the right.

hundreds	tens	ones	tenths	hundredths
			●	● ● ● ● ●

$$\begin{array}{c} 3 \\ \downarrow \\ \div 100 \\ \downarrow \\ = 0.03 \end{array}$$

LO: I can divide 1 and 2 digit numbers by 100

- SOME WILL EVEN compare calculations to spot patterns
- SOME will work backwards to find what number has been divided by 100
- MOST will divide by 100 to give decimal answers
- ALL will use place value to divide by 100

Intelligent practice

One chilli

Dexter uses counters to make a 1-digit number.

Tens	Ones	Tenths	Hundredths
	● ●		

To divide the number by 100, we move the counters two columns to the right.

What is the value of the counters now?

Use this method to solve:

$$4 \div 100 = \square \quad 5 \div 100 = \square \quad \square = 6 \div 100$$

One chilli

Here is a two-digit number on a place value chart.

Tens	Ones	Tenths	Hundredths
7	2		

When dividing by 100, we move the digits 2 places to the _____.

$$72 \div 100 = \square$$

Use this method to solve:

$$82 \div 100 = \square \quad \square = 93 \div 100 \quad 0.23 = \square \div 100$$

Intelligent practice answers

One chilli

Dexter uses counters to make a 1-digit number.

Tens	Ones	Tenths	Hundredths
	● ●		

To divide the number by 100, we move the counters two columns to the right.

What is the value of the counters now? **0.02**

Use this method to solve:

$$\begin{array}{ccc} 4 \div 100 = \square & 5 \div 100 = \square & \square = 6 \div 100 \\ \downarrow & \downarrow & \downarrow \\ \mathbf{0.04} & \mathbf{0.05} & \mathbf{0.06} \end{array}$$

One chilli

Here is a two-digit number on a place value chart.

Tens	Ones	Tenths	Hundredths
7	2		

When dividing by 100, we move the digits 2 places to the right.

$$72 \div 100 = \mathbf{0.72}$$

Use this method to solve:

$$\begin{array}{ccc} 82 \div 100 = \square & \square = 93 \div 100 & 0.23 = \square \div 100 \\ \downarrow & \downarrow & \downarrow \\ \mathbf{0.82} & \mathbf{0.93} & \mathbf{23} \end{array}$$

Intelligent Practice

Three chillies

174



$\div 100$



$\div 100$



6.98

309



$\div 100$



$\div 100$



0.24

Intelligent Practice

Three chillies **answers**

174



÷ 100



1.74

698



÷ 100



6.98

309



÷ 100



3.09

24



÷ 100



0.24

Dive deeper

Describe the pattern.

$$7,000 \div 100 = 70$$

$$700 \div 100 = 7$$

$$70 \div 100 = 0.7$$

$$7 \div 100 = 0.07$$

Can you complete the pattern starting with 5,300 divided by 100?

Teddy says,

45 divided by 100 is 0.45
so I know 0.45 is 100
times smaller than 45



Mo says,

45 divided by 100 is 0.45
so I know 45 is 100 times
bigger than 0.45



Who is correct?

Explain your answer.

Dive deeper answers

Describe the pattern.

$$7,000 \div 100 = 70$$

$$700 \div 100 = 7$$

$$70 \div 100 = 0.7$$

$$7 \div 100 = 0.07$$

Can you complete the pattern starting with 5,300 divided by 100?

Children will describe the pattern they see e.g. 7,000 is 10 times bigger than 700, therefore the answer has to be 10 times bigger as the divisor has remained the same.

For 5,300:
 $5,300 \div 100 = 53$
 $530 \div 100 = 5.3$
 $53 \div 100 = 0.53$
 $5.3 \div 100 = 0.053$

Teddy says,

45 divided by 100 is 0.45
so I know 0.45 is 100
times smaller than 45



Mo says,

45 divided by 100 is 0.45
so I know 45 is 100 times
bigger than 0.45



Who is correct?
Explain your answer.

Teddy and Mo are both correct. Children may use a place value chart to help them explain their answer.

Self assessment: how did you do?

- SOME WILL EVEN compare calculations to spot patterns

Did you get the Dive Deeper questions right? Did you explain your answers?

- SOME will work backwards to find what number has been divided by 100

Did you get the three chilli questions right?

- MOST will divide by 100 to give decimal answers

Did you get the one and two chilli questions right?

- ALL will use place value to divide by 100

Did you use the method shown in the Recall part of the lesson?