

Key Vocabulary
tenths
hundredths
decimal tenths
decimal hundredths
decimal equivalents
part-whole model
rounding
decimal point
place value

13.05.20

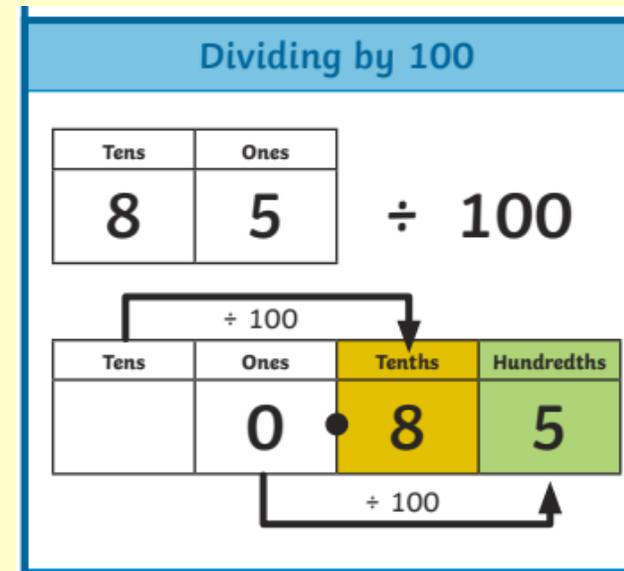
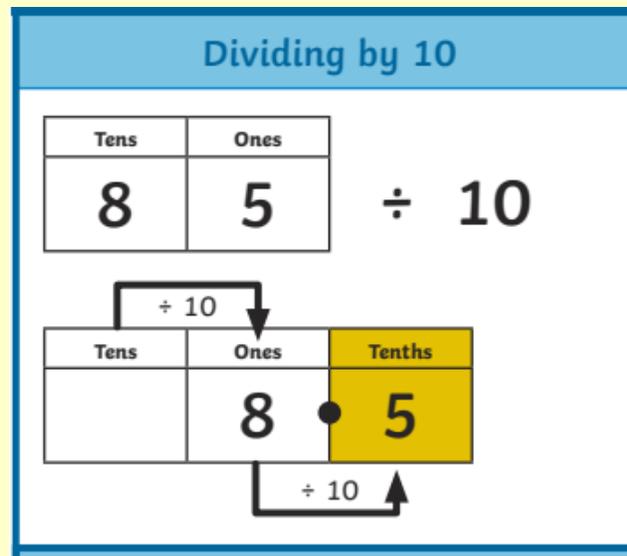
I can find the effect of dividing a one- or two-digit number by 10 and 100.

Watch this video to remember what happens when we divide by 10 and 100.

<https://www.youtube.com/watch?v=PPMnbH2M0io>

Dividing by 1, 10 or 100

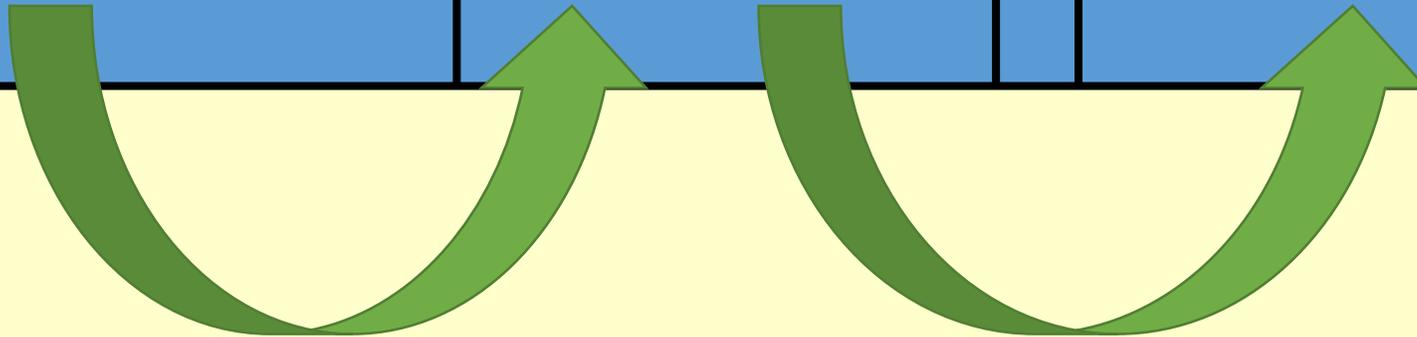
- When you divide by 1 the answer stays the same. $21 \div 1 = 21$
- When you divide by 10, move all the digits one place to the right.
 $210 \div 10 = 21$
- When you divide by 100, move all the digits two places to the right.
 $2100 \div 100 = 21$



What this looks like when thinking about decimals.

$$31 \div 10 =$$

Tens	Ones	●	Tenths	Hundredths
3	1	●		



When dividing by 10 my number moves one place to the right.

My new number would now be 3.1

$$31 \div 100 =$$

Tens	Ones	•	Tenths	Hundredths
3	1	•		

When we divide by 100 our number moves two places to the right. It would now become 0.31
We must remember 0 is an important place holder.

Using some objects to put on a place value chart such as sweets, marbles, counters, lego blocks or money

Draw a small place value chart like this:

Tens	Ones	•	Tenths	Hundredths
		•		

Take photos of this activity and send them to your teacher.

Have a go at solving these by physically moving the objects.

$12 \div 100 =$

$3 \div 10 =$

$56 \div 10 =$

$8 \div 100 =$

Complete these activities in your workbook:

1. Teddy uses counters to make a 2-digit number.

Tens	Ones	Tenths	Hundredths
●	●●		

To divide the number by 10, we move the counters one column to the right.

What is the value of the counters now?

Use this method to solve:

$$42 \div 10 = \square \quad 35 \div 10 = \square \quad \square = 26 \div 10$$

2. 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:

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

3. Complete these divisions:

$$23 \div 100 =$$

$$\underline{\quad} \div 10 = 8.1$$

$$4.2 \div 10 =$$

$$21 \div \underline{\quad} = 0.21$$

$$2 \div 100 =$$

$$9.5 \div \underline{\quad} = 0.95$$

4. 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 4, 300 divided by 100?

5. Write an explanation of what happens when you divide any number by 10 or 100.

Challenge Game:

Roll two dice to make two 2-digit numbers.

Divide your numbers by 100. Record your answer. Roll again.

Here is an example.



$36 \div 100$ and $63 \div 100$

$$\boxed{} \div 100 = \boxed{} \text{ and } \boxed{} \div 100 = \boxed{}$$

$$\boxed{} \div 100 = \boxed{} \text{ and } \boxed{} \div 100 = \boxed{}$$

What is the greatest possible answer you can get?

What is the smallest possible answer?

If you don't have a dice
use this online dice.

<https://nrich.maths.org/6717>