Year 6 Maths Home Learning Resources
Term 5, Week 3

Session 4: Dividing by 10, 100 and 1000

Can you explain it?

Colin says that 492 ÷ 100 = 49,200

Explain why he is incorrect:

(He is incorrect because …….. The correct answer is …….. He should have …….)

He is incorrect because he has made the number one hundred times bigger: he has multiplied by 100. The correct answer is 4.92; he should have divided by 100 or made it one hundred times smaller by moving the digits two places to the right on the place value chart.

Can you apply it?

Solve a problem:

In this tower, two adjacent numbers multiply to give the number above. Can you complete the tower?

Can you make another row at the bottom that would follow the same rule?

	480		
	24	20	
0.24	100	0.2	
0.12	2	50	0.004

Create a problem:

Create your own tower problem like the one above for someone in your family to solve.

Solve a Problem:

Coco is drawing a map of her journey to school. 1 cm on the map represents 100 m. If her journey to school is 1.53 km, how many cm on the map would this be? (Don't forget to think carefully about the units).

Journey to school: 1.53 x 1000 = 1530 m

Distance on map: 1530 ÷ 100 = 15.3 cm

Find the missing numbers:

How many different ways can you make these statements true, if at least one number in each statement is a decimal?

There are many solutions – it is the relative place value that is important.

One possible solution is:

1.5 x 10 = ***15,000*** ÷ 1000

1,500 ÷ 10 = ***1.5*** x 100

1.5 ÷ 100 = ***15*** ÷ 1000

1.5 x 10 = ***0.015*** x 1000