

To be able to divide numbers by 10, 100 and 1,000 to make numbers with up to three decimal places

MathShed

Starter:
If the following are the second and third steps in a sequence, what would the first and fourth steps be? Write each representation as a number too!

thousands	hundreds	tens	ones	tenths	hundredths	thousandths
		● ●	●			
			● ●	●		

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Activity 1:
Divide the number below by 10, 100 and 1,000. Complete the sentences below:

thousands	hundreds	tens	ones	tenths	hundredths	thousandths
		● ● ● ●	● ● ● ● ●			

- The number shown in the place value chart at the start is _
- When dividing by 10, the counters move _ places to the right to make _
- When dividing by 100, the counters move _ places to the right to make _
- When dividing by 1,000, the counters move _ places to the right to make _

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Activity 2:
Use a place value chart to calculate the following:

- $88 \div 10 =$
- $88 \div 100 =$
- $88 \div 1,000 =$
- $357 \div 100 =$
- $357 \div 10 =$
- $357 \div 1,000 =$
- $703 \div 1,000 =$
- $703 \div 10 =$
- $703 \div 100 =$

thousands	hundreds	tens	ones	tenths	hundredths	thousandths
		● ●	● ●			

thousands	hundreds	tens	ones	tenths	hundredths	thousandths
	3	1	2			
		3	1	2		
			3	1	2	
			0	3	1	2

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Activity 3:
Are the following number sentences true or false?
Correct the false statements by providing the correct answer.

- $701 \div 10 = 7.1$
- $503 \div 100 = 5.03$
- $540 \div 1,000 = 0.054$
- $40.3 \div 100 = 0.403$
- $0.103 \times 100 = 103$
- $70.4 \div 100 = 0.074$
- $0.091 \times 1,000 = 91$

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Activity 4:
Complete the table below:

Starting number	$\div 10$	$\div 100$	$\div 1,000$
50			
5 km			
7	0.7		
			0.8
		7.07	
£150			

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Activity 5:
Using a number from Column X, an operation from Column Y and a number from Column Z, how many ways can you make 0.09?

X	Y	Z
0.009	× ÷	1
0.09		10
9		100
90		1,000
900		

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Evaluation:



When I divide by 1,000, I take away three zeros or move the decimal point around.

Do you agree?
Explain your answer.