

Multiplication and Division



Lesson 9

Divide by 10, 100 and 1,000



Solve the multiplications below.

a) $9.87 \times 100 =$

b) $148 \times 10 =$

c) $217.8 \times 1,000 =$

d) $2,154 \times 100 =$

e) $9.8 \times 10 =$

f) $87.3 \times 1,000 =$

Solve the multiplications below.

a) $9.87 \times 100 = 987$

b) $148 \times 10 = 1,480$

c) $217.8 \times 1,000 = 217,800$

d) $2,154 \times 100 = 215,400$

e) $9.8 \times 10 = 98$

f) $87.3 \times 1,000 = 87,300$

Divide by 10, 100 and 1,000

The number 27,000 is represented in a place value chart below.

TTh	Th	H	T	O
2	7	0	0	0

What columns are the digits in?



Divide by 10, 100 and 1,000

The number 27,000 is represented in a place value chart below.

TTh	Th	H	T	O
2	7	0	0	0

What columns are the digits in?

**The digits are in the ten thousands and thousands columns.
There are place holders in the hundreds, tens and ones columns.**

Divide by 10, 100 and 1,000

What will happen to the digits when I divide by 10?

TTh	Th	H	T	O
2	7	0	0	0

$$27,000 \div 10 =$$



Divide by 10, 100 and 1,000

What will happen to the digits when I divide by 10?

TTh	Th	H	T	O
2	7	0	0	0

TTh	Th	H	T	O
	2	7	0	0

$$27,000 \div 10 = 2,700$$

The digits move one place value column to the right.



Divide by 10, 100 and 1,000

What will happen to the digits when I divide by 100?

TTh	Th	H	T	O
2	7	0	0	0

$$27,000 \div 100 =$$



Divide by 10, 100 and 1,000

What will happen to the digits when I divide by 100?

TTh	Th	H	T	O
2	7	0	0	0

TTh	Th	H	T	O
		2	7	0

$$27,000 \div 100 = 270$$

The digits move two place value columns to the right.



Divide by 10, 100 and 1,000

What will happen to the digits when I divide by 1,000?

TTh	Th	H	T	O
2	7	0	0	0

$$27,000 \div 1,000 =$$



Divide by 10, 100 and 1,000

What will happen to the digits when I divide by 1,000?

TTh	Th	H	T	O
2	7	0	0	0

TTh	Th	H	T	O
			2	7

$$27,000 \div 1,000 = 27$$

The digits move three place value columns to the right.



Divide by 10, 100 and 1,000

Complete these sentences with the vocabulary.

When I divide by _____, each digit moves ____ place(s) to the _____ on the place value grid.

When I divide by _____, each digit moves ____ place(s) to the _____ on the place value grid.

When I divide by _____, each digit moves ____ place(s) to the _____ on the place value grid.

10

100

1,000

1

2

3

right

right

right



Divide by 10, 100 and 1,000

Complete these sentences with the vocabulary.

When I divide by **10**, each digit moves **1** place(s) to the **right** on the place value grid.

When I divide by **100**, each digit moves **2** place(s) to the **right** on the place value grid.

When I divide by **1,000**, each digit moves **3** place(s) to the **right** on the place value grid.



Divide by 10, 100 and 1,000

Look at the divisions represented on these place value charts.

TTh	Th	H	T	O
5	6	0	0	0

TTh	Th	H	T	O
	5	6	0	0

$$56,000 \div 10 = 5,600$$

TTh	Th	H	T	O
		5	6	0

$$56,000 \div 100 = 560$$

TTh	Th	H	T	O
			5	6

$$56,000 \div 1,000 = 56$$

Complete these sentences.

5,600 is _____ the size of 56,000.

560 is _____ the size of 56,000.

56 is _____ the size of 56,000.



Divide by 10, 100 and 1,000

Look at the divisions represented on these place value charts.

TTh	Th	H	T	O
5	6	0	0	0

TTh	Th	H	T	O
	5	6	0	0

TTh	Th	H	T	O
		5	6	0

TTh	Th	H	T	O
			5	6

$$56,000 \div 10 = 5,600$$

$$56,000 \div 100 = 560$$

$$56,000 \div 1,000 = 56$$

Complete these sentences.

5,600 is **one-tenth** the size of 56,000.

560 is **one-hundredth** the size of 56,000.

56 is **one-thousandth** the size of 56,000.



Divide by 10, 100 and 1,000

Use the place value charts to divide the following numbers by 10:

a) $62,600 \div 10 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
		6	2	6	0	0			

b) $236 \div 10 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
				2	3	6			



Divide by 10, 100 and 1,000

answer

Use the place value charts to divide the following numbers by 10:

a) $62,600 \div 10 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
			6	2	6	0			

b) $236 \div 10 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
					2	3	.	6	

Divide by 10, 100 and 1,000

Use the place value charts to divide the following numbers by 100:

a) $352,900 \div 100 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
	3	5	2	9	0	0			

b) $714 \div 100 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
				7	1	4			



Divide by 10, 100 and 1,000

answer

Use the place value charts to divide the following numbers by 100:

a) $352,900 \div 100 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
			3	5	2	9			

b) $714 \div 100 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
						7	.	1	4



Divide by 10, 100 and 1,000

Use the place value charts to divide the following numbers by 1,000:

a) $3,420,000 \div 1,000 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
3	4	2	0	0	0	0			

b) $3,290 \div 1,000 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
			3	2	9	0			



Divide by 10, 100 and 1,000

answer

Use the place value charts to divide the following numbers by 1,000:

a) $3,420,000 \div 1,000 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
			3	4	2	0			

b) $3,290 \div 1,000 =$

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths
						3	.	2	9



Divide by 10, 100 and 1,000

Use $<$ $>$ or $=$ to compare the following divisions:

$$170 \div 100 \quad \bigcirc \quad 17 \div 10$$

$$9,300 \div 1,000 \quad \bigcirc \quad 900 \div 100$$



Divide by 10, 100 and 1,000

answer

Use $<$ $>$ or $=$ to compare the following divisions:

$$\begin{array}{r} 170 \div 100 \\ 1.7 \end{array}$$

$=$

$$\begin{array}{r} 17 \div 10 \\ 1.7 \end{array}$$

$$\begin{array}{r} 9,300 \div 1,000 \\ 9.3 \end{array}$$

$>$

$$\begin{array}{r} 900 \div 100 \\ 9 \end{array}$$

Spot the mistake.

James

I have 240 pennies so I have £24.



Spot the mistake.

James

I have 240 pennies so I have £24.



There are 100 pennies in a pound
 $240 \div 100 = 2.4$ so Toby has £2.40 not £24

Your turn! Try the worksheet.

<p>Divide by 10, 100 and 1,000</p> <p>grammarsaurus.co.uk</p>	<p>1) Use the place value grid below to answer the following questions:</p> <p>a) $2,400 \div 10 =$</p> <table border="1"> <thead> <tr> <th>Millions</th> <th>Hundred Thousands</th> <th>Thousands</th> <th>Tens</th> <th>Ones</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>b) $2,400 \div 100 =$</p> <table border="1"> <thead> <tr> <th>Millions</th> <th>Hundred Thousands</th> <th>Thousands</th> <th>Tens</th> <th>Ones</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>c) $2,400 \div 1,000 =$</p> <table border="1"> <thead> <tr> <th>Millions</th> <th>Hundred Thousands</th> <th>Thousands</th> <th>Tens</th> <th>Ones</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Millions	Hundred Thousands	Thousands	Tens	Ones						Millions	Hundred Thousands	Thousands	Tens	Ones						Millions	Hundred Thousands	Thousands	Tens	Ones						<p>Divide by 10, 100 and 1,000</p> <p>True OR False</p> <p>grammarsaurus.co.uk</p>	<p>1) Tick the correct box to show if the statement is True or False.</p> <p>5,300 \div 10 = 530</p> <p>6,000 \div 100 = 60</p> <p>400 \div 1,000 = 4</p> <p>646 \div 10 = 64.6</p> <p>363 \div 100 = 3.63</p> <p>47.8 \div 10 = 4.78</p> <p>Divide by 10, 100 and 1,000</p> <p>Pictorial</p> <p>grammarsaurus.co.uk</p>	<p>Divide by 10, 100 and 1,000</p> <p>1) Use the place value grid below to answer the following questions:</p> <p>240 \div 10 =</p> <p>240 \div 100 =</p> <p>240 \div 1,000 =</p> <table border="1"> <thead> <tr> <th>Millions</th> <th>Hundred Thousands</th> <th>Ten Thousands</th> <th>Thousands</th> <th>Hundreds</th> <th>Tens</th> <th>Ones</th> <th>tenths</th> <th>hundredths</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	tenths	hundredths										<p>2) Answer the following questions:</p> <p>a) $5,300 \div 100 =$</p> <p>b) $6,000 \div 1,000 =$</p> <p>c) $45 \div 10 =$</p> <p>d) $646 \div 100 =$</p> <p>e) $363 \div 1,000 =$</p> <p>f) $390 \div 100 =$</p> <p>g) $47.8 \div 10 =$</p>
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<p>Divide by 10, 100 and 1,000</p>	<p>3) Circle the correct answer.</p> <p>a) 3</p>	<p>Divide by 10, 100 and 1,000</p>	<p>3) Order these calculations from smallest to largest.</p> <p>$234 \div 10$</p> <p>$2,340 \div 1,000$</p>	<p>Divide by 10, 100 and 1,000</p>	<p>3) Use $<$, $>$ or $=$ to compare the following:</p> <p>$234 \div 10$ <input type="text"/> $2,340 \div 1,000$</p>																																																