

Year 6 Maths

Week 15 Lesson 1

Decimals – Dividing



In this lesson you will:

- Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to three decimal places;
- Solve problems which require answers to be rounded to specified degrees of accuracy.



Introduction

Find the 3 numbers which complete the calculation.

780

10

8.07

1,000

807

7.08

100

870

÷

=

Introduction

Find the 3 numbers which complete the calculation.

780

10

8.07

1,000

807

7.08

100

870

$$\boxed{807} \div \boxed{100} = \boxed{8.07}$$

Varied Fluency 1

Match the calculation to the correct answer.

A. $327 \div 100$

3.72

B. $37.2 \div 10$

0.372

C. $327 \div 1,000$

3.27

D. $37.2 \div 100$

0.327

Varied Fluency 1

Match the calculation to the correct answer.

A. $327 \div 100$

3.72

B. $37.2 \div 10$

0.372

C. $327 \div 1,000$

3.27

D. $37.2 \div 100$

0.327

Varied Fluency 2

The number below has been divided by 100.

What was the original number?

H	T	O	•	t	h	th
		● ● ●		●	●	●
		● ● ●	●	●	●	
		● ● ●		●		

Varied Fluency 2

The number below has been divided by 100.

What was the original number?

H	T	O	•	t	h	th
● ● ●	●	●		●		
● ● ●	●	●	●			
● ● ●	●					

932.1

Varied Fluency 3

Complete the following calculations.

A. $1,328 \div \boxed{} = 13.28$

B. $137 \div 100 = \boxed{}$

C. $\boxed{} \div 1,000 = 0.373$

Varied Fluency 3

Complete the following calculations.

A. $1,328 \div 100 = 13.28$

B. $137 \div 100 = 1.37$

C. $373 \div 1,000 = 0.373$

Varied Fluency 4

Dividing by 1,000 can also be used to convert measurements from one unit to another.

The conversion below is correct. True or false?

$$7,289\text{g} = 72.89\text{kg}$$

Varied Fluency 4

Dividing by 1,000 can also be used to convert measurements from one unit to another.

The conversion below is correct. True or false?

$$7,289\text{g} = 72.89\text{kg}$$

False. $7,289 \div 1,000 = 7.289$ so

$$7,289\text{g} = 7.289\text{kg}$$

Main Tasks – part i

Level 1

1a. Match the calculation to the correct answer.

A. $325 \div 10$

32.05

B. $3,010 \div 100$

3.1

C. $3,100 \div 1,000$

32.5

D. $3,205 \div 100$

30.1



VF

2a. The number below has been divided by 10. What was the original number?

Th	H	T	O	•	t
	●●●●	●●	●	●	●●



VF

Level 2

5a. Match the calculation to the correct answer.

A. $1,238 \div 1,000$

13.288

B. $1,238 \div 10$

123.8

C. $13,288 \div 1,000$

138.2

D. $13,820 \div 100$

1.238



VF

6a. The number below has been divided by 100. What was the original number?

H	T	O	•	t	h	th
		●●●●	●		●●	●



VF

Level 3

9a. Match the calculations to the correct answer.

A. $699 \div 300$

B. $2,303 \div 100$

C. $46.6 \div 20$

D. $23,030 \div 1,000$

2.33

23.03



VF

10a. Rosie has made 4,509ml of squash. She drinks 1,312ml.

How many litres of squash is left?



VF

Main Tasks – part ii

Level 1

3a. Complete the following calculations.

A. $5,100 \div \square = 5.1$

B. $5,132 \div \square = 51.32$

C. $513 \div \square = 5.13$



VF

4a. True or false?

$$5,151 \div 100 = 515.1$$



VF

Level 2

7a. Complete the following calculations.

A. $5,443 \div \square = 54.43$

B. $54,430 \div 1,000 = \square$

C. $\square \div 100 = 54.033$



VF

8a. Dividing by 1,000 can also be used to convert measurements from one unit to another. The conversion below is correct. True or false?

$$1,670\text{g} = 16.7\text{kg}$$



VF

Level 3

11a. Complete the following calculations.

A. $42.304 \times \square = 84,608$

B. $48,602 \div 200 = \square$

C. $4,109 \div \square = 41.09$



VF

12a. True or false?

$$9,306 \div 300 = 31.02$$



VF

Developing

1a. **A = 32.5; B = 30.1; C = 3.1; D = 32.05**

2a. **6,312**

3a. **A = 1,000; B = 100; C = 100**

4a. **False. The answer is 51.51.**

Expected

5a. **A = 1.238; B = 123.8; C = 13.288;**

D = 138.2

6a. **702.1**

7a. **A = 100; B = 54.43; C = 5,403.3**

8a. **False, it is 1.67kg**

Greater Depth

9a. **A = 2.33; B = 23.03; C = 2.33; D = 23.03**

10a. **3.197 litres**

11a. **A = 2,000; B = 243.01; C = 100**

12a. **True**

Here are the answers. How did you do?

There's going to be two more pages of questions. If you made some mistakes then great! Mistakes are brilliant as we remember them and learn from them.

The following questions are similar to the previous ones, so apply what you learnt from the previous ones.

You may also want to move up a level if you're feeling confident.

Main Tasks – part iii

Level 1

1b. Match the calculation to the correct answer.

A. $545 \div 10$

5.4

B. $5,400 \div 1,000$

5.5

C. $550 \div 100$

45.05

D. $4,505 \div 100$

54.5



VF

2b. The number below has been divided by 100. What was the original number?

Th	H	T	O	.	t
		●●●●	●●		●
		●●●●	●●	●	●
		●●●●	●●		●



VF

Level 2

5b. Match the calculation to the correct answer.

A. $362.7 \div 10$

36.277

B. $36,277 \div 1,000$

36.27

C. $37,622 \div 100$

37.622

D. $37,622 \div 1,000$

376.22



VF

6b. The number below has been divided by 10. What was the original number?

H	T	O	.	t	h	th
	●●	●			●	●
	●●		●		●	●
	●				●	●



VF

Level 3

9b. Match the calculations to the correct answer.

A. $3,203 \div 100$

B. $6,400.6 \div 200$

32.03

C. $32,030 \div 1,000$

32.003

D. $96,009 \div 3,000$



VF

10b. Jack needs to cycle 52,459m for charity. He rests after 24,362m.

How many kilometres has Jack got left to cycle?



VF

Main Tasks – part iv

Level 1

3b. Complete the following calculations.

A. $134 \div \square = 1.34$

B. $1,230 \div \square = 1.23$

C. $1.2 \div \square = 0.12$



VF

4b. True or false?

$$456 \div 100 = 4.56$$



VF

Level 2

7b. Complete the following calculations.

A. $12,340 \div \square = 12.34$

B. $12,304 \div 1,000 = \square$

C. $\square \div 100 = 12.034$



VF

8b. Dividing by 1,000 can also be used to convert measurements from one unit to another. The conversion below is correct. True or false?

$$5,689\text{m} = 568.9\text{km}$$



VF

Level 3

11b. Complete the following calculations.

A. $69,909 \div \square = 23.303$

B. $64,090 \div 1,000 = \square$

C. $\square \times 200 = 640.8$



VF

12b. True or false?

$$8,202 \div 2,000 = 41.01$$



VF

Well done!

If there's anything you are still unsure of from today's lesson please contact your teacher.

Developing

1b. **A = 54.5; B = 5.4; C = 5.5; D = 45.05**

2b. **7,320**

3b. **A = 100; B = 1,000; C = 10**

4b. **True**

Expected

5b. **A = 36.27; B = 36.277; C = 376.22;**

D = 37.622

6b. **410.23**

7b. **A = 1,000; B = 12.304; C = 1,203.4**

8b. **False, it is 5.689km**

Greater Depth

9b. **A = 32.03; B = 32.003; C = 32.03;**

D = 32.003

10b. **28.097 kilometres**

11b. **A = 3,000; B = 64.09; C = 3.204**

12b. **False. The answer is 4.101**