

Year 6: Remote Learning Answers

Maths Lesson 1 ANSWERS

Divide by 10, 100 and 1,000

Rose Maths

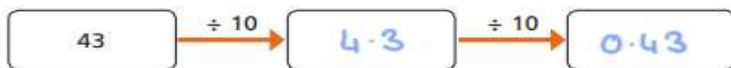


- 1 Complete the calculations and sentences.
Use place value counters to help you.

Th	H	T	O	Tth	Hth
	●	●●●			

- a) $140 \div 10 =$
When the number is divided by 10 the counters move place to the right.
- b) $140 \div 100 =$
When the number is divided by 100 the counters move places to the right.
- c) $140 \div 1,000 =$
When the number is divided by 1,000 the counters move places to the right.

- 2 Complete the diagram.



- 3 a) Draw counters to represent the calculations.

$123 \div 1$

H	T	O	Tth	Hth	Thth
○	○○	○○○			

$123 \div 10$

H	T	O	Tth	Hth	Thth
○ ○ ○					

$123 \div 100$

H	T	O	Tth	Hth	Thth
○	○○	○○○			

$123 \div 1,000$

H	T	O	Tth	Hth	Thth
○	○○	○○○			

- b) Complete the calculations.

$123 \div 1 =$

$123 \div 10 =$

$123 \div 100 =$

$123 \div 1,000 =$

What do you notice?

4 Complete the calculations.

a) $16 \div 10 = 1.6$

d) $332 \div 1,000 = 0.332$

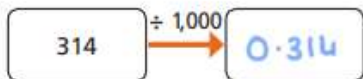
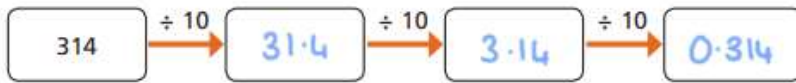
b) $43.4 \div 100 = 0.434$

e) $2.4 \div 200 = 0.012$

c) $614 \div 1,000 = 0.614$

f) $5.09 = 101.8 \div 20$

5 Complete the diagrams.



What do you notice? Why does this happen?

They all give the same final answer because
 $10 \times 10 \times 10 = 100 \times 10 = 1,000$



6 Write $>$, $<$ or $=$ to compare the number sentences.

$5,400 \div 10 \div 10 \div 10 = 5,400 \div 1,000$

$60 \div 100 \div 10 < 600 \div 100$

$5.7 \div 10 = 57 \div 100$

$5,601 \div 1,000 > 5,601 \div 10$

7 Dexter is solving the calculation $5,400 \div 100$



I think the answer is 54.00

Is Dexter correct? Yes

Explain your reasoning.

54.00 is the same as 54

8 Rosie is solving the calculation $3,600 \div 200$

I think the answer is 0.36



Is Rosie correct? NO

Explain your reasoning.

She has divide by 100 twice (10,000) she should have divided by 100 over 2 to give an answer of 18

Maths Lesson 2 ANSWERS

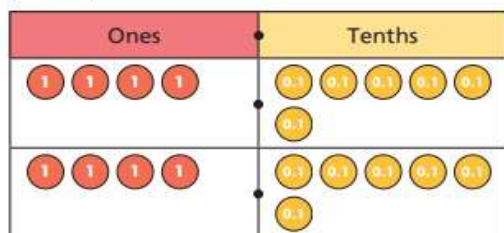
Multiply decimals by integers

1 Use place value counters to solve the calculations.

a) $3.2 \times 3 = 9.6$

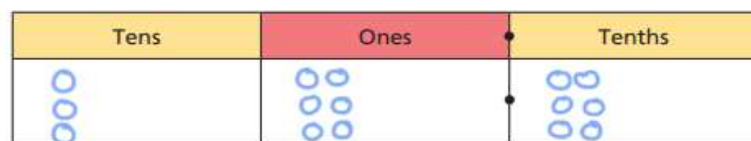


b) $4.6 \times 2 = 9.2$



2 Solve the multiplication. Draw your answer.

$12.2 \times 3 = 36.6$



3 Nijah uses long multiplication to solve 3.72×3

		3	7	2
	x			3
		0	0	6
		2	1	0
		9	0	0
	1	1	1	6

Use long multiplication to work out the calculations.

a)

		4	8	6
	x			4
		0	2	4
		3	2	0
		1	6	0
		1	9	4

b)

		2	0	9
	x			6
		0	5	4
		0	0	0
		1	2	0
		1	2	5

4 Work out the multiplications.

a) $5.2 \times 4 = 20.8$

d) $7.02 = 2.34 \times 3$

b) $14.3 \times 3 = 42.9$

e) $11.505 \times 4 = 46.02$

c) $6 \times 9.1 = 54.6$

f) $9.602 \times 6 = 57.612$

- 5 0.25 kg of flour is needed to make one cake.
How much flour is needed to make four cakes?



- 6 Work out the multiplications.

a) $7.2 \times 2 = 14.4$

$7.2 \times 4 = 28.8$

$14.4 \times 4 = 57.6$

$7.2 \times 8 = 57.6$

b) $10.35 = 3.45 \times 3$

$103.5 = 34.5 \times 3$

$1,035 = 345 \times 3$

- 7 Amir is solving 3.4×4



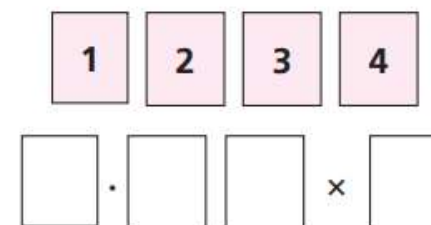
To solve this, I did 34×4 , which was 136. Then I multiplied my answer by 10 to get an answer of 1,360.

Do you agree with Amir? NO

Explain why.

36 is ten times bigger than 3.6 so he should have divided by 10 to get 13.6

- 8 Use the digits 1, 2, 3 and 4 once each to create a calculation..



- a) How many different products can you make?

- b) What is the greatest possible product?

12.84

- c) What is the smallest possible product?

2.34

- d) What is the product closest to 12?

12.36

Compare answers with a partner.

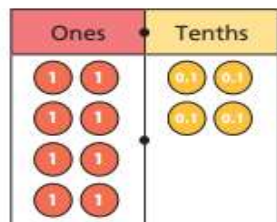
Maths Lesson 3 ANSWERS



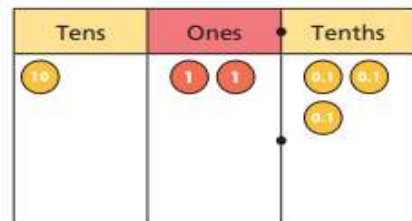
Divide decimals by integers

1 Use place value counters to work out the divisions.

a) $8.4 \div 4 = 2.1$

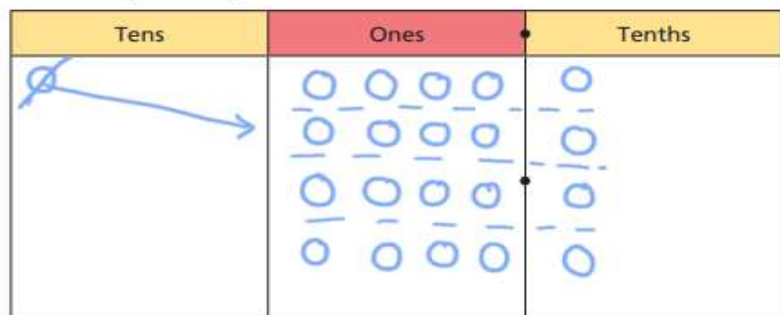


b) $12.3 \div 3 = 4.1$



2 Work out the division. Draw your answer.

$16.4 \div 4 = 4.1$



3 Brett uses short division to work out $13.2 \div 6$



Use short division to work out the calculations.



4 Work out the divisions.

a) $25.6 \div 8 = 3.2$

d) $3.89 = 19.45 \div 5$

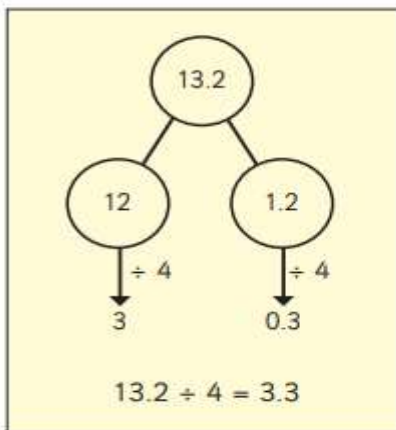
b) $14.8 \div 4 = 3.7$

e) $202.35 \div 3 = 67.45$

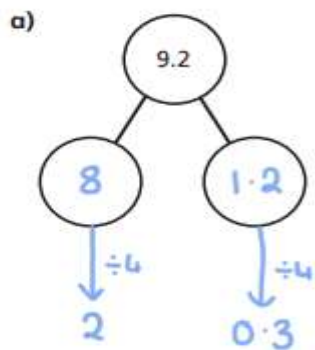
c) $18.48 \div 6 = 3.08$

f) $105.12 \div 9 = 11.68$

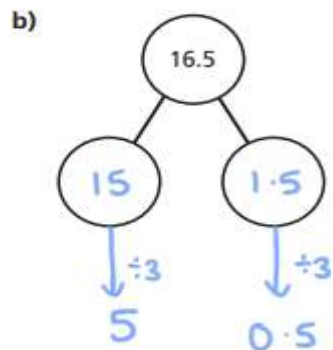
- 5 Esther solves $13.2 \div 4$ by partitioning 13.2 into two numbers that are easier to divide.



Use Esther's method to complete the part-whole model and calculation.



$$9.2 \div 4 = \boxed{2.3}$$



$$16.5 \div 3 = \boxed{5.5}$$

Compare answers with a partner. Did you partition your numbers in the same way?



- 6 Work out the divisions.

a) $9.64 \div 4 = \boxed{2.41}$

$$96.4 \div 4 = \boxed{24.1}$$

$$0.964 \div 4 = \boxed{0.241}$$

$$9.64 \div 8 = \boxed{1.205}$$

b) $19.44 \div 9 = \boxed{2.16}$

$$19.53 \div 9 = \boxed{2.17}$$

$$19.62 \div 9 = \boxed{2.18}$$

- 7 Fill in the missing numbers.

$$3.6 \div 4 = 36 \div \boxed{40}$$

$$3.6 \div 4 = \boxed{7.2} \div 8$$

- 8 Complete the calculation.

eg. $8.4 \div \boxed{2} = 4.2 \div \boxed{1}$

How many different solutions can you find?

What patterns do you notice? Talk about it with a partner.

Maths Lesson 4 ANSWERS

Division to solve problems

White
Rose
Maths

- 1 There are 1,360 children in a school.
A quarter of the children walk to school.
How many children walk to school?

340

- 2 Huan has saved his pocket money for 5 weeks.
He gets the same pocket money every week.
He has saved £16.65
How much pocket money does Huan get each week?

£3.33

- 3 Tom is running a 6-kilometre race.
He has run one-third of the race so far.
How many more kilometres does Tom have left to run?

4 km



- 4 Dora, Ron and Teddy are making paper chains.



Dora

My paper chain
is 1.1 m long.

Dora's paper chain
is twice as long
as mine.



Ron



Teddy

My paper chain
is three times longer
than Ron's.

- a) How long is Ron's paper chain?

0.55m

- b) How long is Teddy's paper chain?

1.65m

- 5 A water bottle holds 2 litres.
A leak in the bottle means 25 ml drips out each day.
How many days will it take until the bottle is empty?



80 days

- 6 a) A school bus can hold 30 people.
There are 726 children going on a school trip.
How many buses are needed?



25

- b) A cake needs 4 eggs.
How many cakes can be made from 345 eggs?



86

- 7 Shop A sells 5 tins of paint for £23.40
Shop B sells 3 tins of the same paint for £14.01



Which shop should Aisha buy her paint from? B
Explain your reasoning.

Shop A is £4.68 per tin. Shop B is £4.67
per tin so shop B is cheaper

- 8 $146 \div 5 = 29$ remainder 1
 $117 \div 4 = 29$ remainder 1



This means that
 $117 \div 4 = 146 \div 5$

Do you agree with Whitney? No
Explain your thinking.

The remainder isn't worth the same amount.
 $146 \div 5 = 29.2$, $117 \div 4 = 29.25$
 $29.2 \neq 29.25$

- 9 I'm thinking of a 3-digit number.
When I divide it by 5, I am left with a remainder of 3
When I divide it by 10, I am left with a remainder of 8
It rounds to 200 to the nearest 100
It has one hundred.
What could my number be?

5, 6, 7, 8 or 9
1 _ 8

e.g. 198

Create your own problem like this for a partner.

Maths Lesson 5 ANSWERS

Q	Requirement	Mark	Additional guidance
1	88	1m	
2	3835	1m	
3	0	1m	
4	734	1m	
5	8	1m	
6	75 598	1m	
7	6169	1m	
8	140	1m	
9	8.7	1m	
10	121	1m	
11	-9	1m	
12	13	1m	Do not accept 9
13	2.63	1m	
14	27.802	1m	
15	12 000	1m	
16	2 397 562	1m	
17	$\frac{5}{7}$	1m	Accept equivalence
18	30 700	1m	
19	700	1m	
20	14.695	1m	

Q	Requirement	Mark	Additional guidance
21	9 999 899	1m	
22	3/12 or 1/4	1m	Accept equivalence
23	81	1m	
24	3 12/9 or 4 1/3	1m	Accept equivalence
25	200	1m	
26	17.92	1m	
27	<p>Award TWO marks for the correct answer of 24</p> <p>If the answer is incorrect, award ONE mark for the formal methods of division with no more than ONE arithmetical error, i.e.</p> <ul style="list-style-type: none"> long division algorithm, e.g. $\begin{array}{r} 24 \text{ r}2 \\ 19 \overline{)456} \\ \underline{-380} \quad (20 \times 19) \\ 76 \\ \underline{-74} \text{ (error)} \quad (4 \times 19) \\ 2 \end{array} \quad \text{OR} \quad \begin{array}{r} 24 \text{ r}10 \\ 19 \overline{)456} \\ \underline{-38} \quad (2 \times 19) \\ 86 \text{ (error)} \\ \underline{-76} \quad (4 \times 19) \\ 10 \end{array}$ short division algorithm, e.g. $\begin{array}{r} 23 \text{ r}18 \text{ (error)} \\ 19 \overline{)456} \end{array}$ 	Up to 2m	<p>Working must be carried through to reach a final answer for the award of ONE mark.</p> <p>Short division methods must be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm, and be a complete method. The carrying figure must be less than the divisor.</p>

Q	Requirement	Mark	Additional guidance
28	960	1m	
29	<p>Award TWO marks for the correct answer of 1 058</p> <p>If the answer is incorrect, award ONE mark for the formal method of long multiplication with no more than ONE arithmetical error, e.g.</p> $\begin{array}{r} 46 \\ \times 23 \\ \hline 138 \\ + 920 \\ \hline 1048 \text{ (error)} \end{array} \quad \text{OR} \quad \begin{array}{r} 46 \\ \times 23 \\ \hline 136 \text{ (error)} \\ + 920 \\ \hline 1046 \end{array}$	Up to 2m	<p>Working must be carried through to reach a final answer for the award of ONE mark.</p> <p>Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens:</p> $\begin{array}{r} 46 \\ \times 23 \\ \hline 138 \\ + 92 \text{ (place value error)} \\ \hline 230 \end{array}$
30	1/4	1m	Accept equivalence
31	22	1m	

Q	Requirement	Mark	Additional guidance
32	<p>Award TWO marks for the correct answer of 53</p> <p>If the answer is incorrect, award ONE mark for the formal methods of division with no more than ONE arithmetical error, i.e.</p> <ul style="list-style-type: none"> • long division algorithm, e.g. $\begin{array}{r} 53r13 \\ 27 \overline{)1431} \\ \underline{-1350} \quad (50 \times 27) \\ 0121 \quad (\text{error}) \\ \underline{-108} \quad (4 \times 27) \\ 13 \end{array} \quad \text{OR} \quad \begin{array}{r} 53r3 \\ 27 \overline{)1431} \\ \underline{-135} \quad (5 \times 27) \\ 0081 \\ \underline{-76} \quad (\text{error}) \quad (3 \times 27) \\ 5 \end{array}$ <ul style="list-style-type: none"> • short division algorithm, e.g. $\begin{array}{r} 53r10 \\ 27 \overline{)1431} \quad (\text{error}) \end{array}$	Up to 2m	<p>Working must be carried through to reach a final answer for the award of ONE mark.</p> <p>Short division methods must be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm, and be a complete method. The carrying figure must be less than the divisor.</p>
33	5/14	1m	Accept 20/50 or equivalent fraction

Q	Requirement	Mark	Additional guidance
34	Award TWO marks for the correct answer of 395 808	1m	Working must be carried through to reach a final answer for the award of ONE mark.
	<p>If the answer is incorrect, award ONE mark for the formal method of long multiplication with no more than ONE arithmetical error, e.g.</p> $\begin{array}{r} 5208 \\ \times 76 \\ \hline 31248 \\ 364560 + \\ \hline 395708 \text{ (error)} \end{array} \quad \text{OR} \quad \begin{array}{r} 5208 \\ \times 76 \\ \hline 31208 \text{ (error)} \\ 364560 + \\ \hline 395768 \end{array}$	1m	Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens:
35	1 7/12	Up to	
36	3/14	2m	

English Lesson 1 – Reading Comprehension –Answers

1. In which year did the Second World War start?

The Second World War started in 1939.

2. Who replaced Neville Chamberlain as the British prime minister?

Winston Churchill replaced Neville Chamberlain as British prime minister.

3. In the text, the author uses the word **advanced**.

Which word most closely matches the word **advanced**? Tick one.

go forward

higher

gathered

fighting

4. How many days did it take to evacuate over 300,000 soldiers?

It took nine days to evacuate over 300,000 troops.

5. Give two characteristics that describe the 'Dunkirk spirit'.

Two characteristics that describe the 'Dunkirk spirit' are determination in the face of adversity or danger and working together with other people.

6. Whose speech included the words 'we shall fight them on the beaches...'?

Winston Churchill's speech included 'we shall fight them on the beaches...'

7. How far is Dunkirk from England?

Dunkirk is 22 miles from England.

8. Number these events in the order they took place:

Germany invade Poland.	1
Churchill orders the evacuation of stranded troops.	4
The Second World War begins.	2
German troops surround British and French troops in Dunkirk.	3

9. Why do you think so many little boats and ships decided to help the evacuation?

Little boats and ships decided to help the evacuation to rescue as many of the trapped troops as possible. They were also able to get nearer to the beaches as they were smaller.

10. There is debate as to whether the Battle of Dunkirk was a victory or a defeat. What do you think? Explain your reasons.

Answers will vary. Opinions must be backed up with reasons linked to the battle itself being a defeat but the evacuation being a success.

There is general public opinion that the battle was a defeat because the troops were surrounded and had to retreat and go home.

However, the evacuation was a great success and was a victory in itself.

English Lesson 2 – Reading Comprehension – Answers

1. Why was Wojtek owned by Polish soldiers?
He was sold as a cub to the Polish soldiers.
2. Why were the soldiers travelling from Siberia to the Middle East?
They had been released from labour camps in Russia in 1941 and were on their way to become part of a new Polish army under the command of the British.
3. Why did the soldiers have to feed Wojtek from a bottle?
They had to feed him from a bottle because he was so small.
4. Why was Wojtek important for the troops' morale?
OPEN He was important because he was like a pet and gave them something to think about, play with and care for when they were far from home.
5. Why was the thief shocked to find himself face to face with a bear?
OPEN He would not have expected it and would have thought he was going to be attacked.
6. How did the company avoid breaking the rules about taking animals with them into war?
They officially enlisted Wojtek as a Polish soldier with his own rank and serial number.
7. How did Wojtek help out at the Battle of Monte Cassino?
He was seen picking up the crates of ammunition and moving them towards the cannons.
8. How were Wojtek's actions marked after the battle?
After the battle, the official badge of the 22nd Transport Company became an image of Wojtek holding a shell. This symbol appeared on vehicles, pennants and on the uniforms of the soldiers.
9. Which countries have statues in memory of Wojtek?
England, Canada, Poland and Scotland all have statues of Wojtek.
10. What does Wojtek's statue in Edinburgh represent?
It represents Wojtek and what happened to him and it also is in memory of the Polish veterans of the Second World War, and the many men, women and children who became refugees because of the war and its aftermath.

Reading for Productivity-Session 1 Answers

1. pioneer
2. that he was not very intelligent
3. he travelled and he discussed science with others around the world
4. He intended to perform science experiments to prove another Italian scientist, Luigi Galvani was incorrect in his scientific ideas.
5. Agree, he continually made breakthroughs over a period of nearly 20 years, each time progressing his understanding (and everyone else's) of electricity.

Reading for Productivity-Session 2 Answers

Retrieval

1. **Find and copy** the treaty that ended World War I.
2. *Treaty of Versailles*
3. Which country invaded China in 1937 in an effort to expand their empire?
China
4. What was the policy of appeasement?

Inference

5. Why do you think Hitler resented the restrictions put on Germany by the Treaty of Versailles?
Hitler wanted power to do whatever he wanted
6. Why were the Germans desperate for someone to turn around their economy?
Because they were struggling and in the great depression
7. Why do you think World War II happened?
Because Hitler and the Nazi party had invaded too many countries and were taking too much control.

Vocabulary

8. Hitler looked to restore Germany to power by **expanding** his empire.
Choose a suitable synonym to replace **expanding**

Growing

9. Define what a **treaty** is

A formally concluded and ratified agreement between states.

10. Choose the most suitable definition for the term '**Great Depression**'

- The period after World War II where the world suffered economically.
- The period before World War II where the world thrived economically.
- *The period before World War II where the world suffered economically.*

11. Define the term '**Fuhrer**'

leader

Reading for Productivity-Session 3 Answers

1) What is a parable? *A parable is a story that has a moral or a message.*

2) Use the glossary to explain what a dilemma is. *A difficult situation or problem.*

3) Who ignored the injured man in the story? *The priest and the Levite*

4) What is meant by the term 'good Samaritan' today? *It is used to describe any kind person that helps someone in need.*

5) Look at the third paragraph. Which word has the closest meaning to 'concept'?

- a) problem b) *idea* c) discussion

6) Explain why it was quite unusual for a Samaritan to help a Jew. *At the time, Samaritans and Jews didn't get on. They had different beliefs and were unkind to each other.*

7) When Jesus says that we should love our neighbours as much as we love ourselves, who do you think he means by the word 'neighbour'? *Various answers e.g. this could be anybody we come across or anyone we meet*

8) Explain the main message of the story.

Love your neighbour and treat others how you want to be treated. Treat them as if they were a member of your family.

Reading for Productivity-Session 4 Answers

1. What is the composer's full name?

Achille-Claude Debussy

2. What style of painting did he try to recreate through his composition?

Impressionism. It uses thousands of dots in order to create an 'impression' of what the painter was focusing on.

3. What does the phrase, '*After a lifetime of composition...*' mean?

Debussy's life was dedicated to / he spent almost all of it making music / composing

4. Where does 'Clair de Lune' appear in Suite Bergamasque?

3rd

5. Using information in the 3 paragraph, how can you tell that Claude Debussy was different than other composers that had come before him?

He was trying to create something different to what had been heard previously.

6. How is Claude Debussy different from another famous composer that you have studied?

Various answers, e.g. - He was French, He won a scholarship/was poor at birth, He applied visual art in his music / His music was inspired by unusual dreams/stories. etc.

Reading for Productivity-Session 5 Answers

1. *Make difficult.*
2. *Extremely useful.*
3. *Gives a more detailed insight into the world around you. Improves your observational skills.*
4. *'It never seemed important that I draw from life or do any art that wasn't directly related to whatever portrait I was working on at the time.'* Why do you think the author had this perspective?- *The artist was only focused on the artwork to help the business and what would make money/profit.*
5. *Done themselves an injustice as drawing from life is a key artist skill that developed their abilities and makes them a better artist. Could also imply it is more enjoyable.*