BROAD HORIZON
TUITION

11+ Tuition

Year 4

Week 2 – Lesson

Answers

Starter Task – Quick Revision

Last lesson we covered multiplying and dividing numbers by 10, 100 and 1000.

1) 0.025 ÷ 100 = **0.00025**

2) 1.2 x 1000 = **1200**

3) 36.78 x 10 = **367.8**

4) 23 ÷ 100 = **0.23**

5) 587 x 1000 = **587000**

6) 750 ÷ 1000 = **0.75**

7) 24.2 ÷ 10 = **2.42**

8) 3.65 x 100 = **365**

9) 25.347 x 1000 = **25347**

10) 9.87 ÷ 1000 = **0.00987**

11) 0.2 ÷ 100 = **0.002**

12) 96 ÷ 1000 = **0.096**

Starter task – Vocabulary

Exercise C

1. Demonstrate
2. Course
3. Machinery
4. Foggy
5. Invert
6. Opportunity
7. Illusion
8. Abusive
9. Desert
10. Imagine

Paper 1	Answer
1. Write in figures: Two thousand, five hundred and forty.	***2 540***
2. What does the figure 7 stand for in the number 6 479?	***70***
3. Write in figures the number: five thousand, six hundred.	***5 600***
4. What is the biggest number you can make with the digits: 3, 8, 4, 2, 9 ?	***98 432***
5. What is one more than 3 679 ?	***3 680***
6. What is seven more than 785?	***792***
7. What is 45 multiplied by 10 ?	***450***
8. How many times is 340 bigger than 34 ?	***10***
9. Which is greater, 3 546 or 3 456 ?	***3 546***
10. What is the next number in this sequence: 34, 44, 54, 64, _____ ?	***74***
Comment:	

Paper 2	Answer
1. Write in figures: Five thousand, seven hundred and eighty three.	***5 783***
2. What does the figure 9 stand for in the number 3 953?	***900***
3. Write in figures the number: seven thousand, eight hundred.	***7 800***
4. What is the smallest number you can make with the digits: 9, 5, 2, 7, 1 ?	***12 579***
5. What is one more than 7 559 ?	***7 560***
6. What is eight more than 333 ?	***341***
7. What is 28 multiplied by 10 ?	***280***
8. How many times is 670 bigger than 67 ?	***10***
9. Which is smaller, 7 477 or 7 774 ?	***7 477***
10. What is the next number in this sequence: 22, 32, 42, 52, _____ ?	***62***
Comment:	

Maths

Practice - Column Multiplication

Long Multiplication Practice - 3 Digits x 2 Digits **Answers**

1.

		1	6	1
x			2	3
		4	**8**	**3**
	3	**2**	**2**	**0**
	3	**7**	**0**	**3**

2.

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

3.

		6	1	4
x			1	8
	4	**9**	**1**	**2**
	6	**1**	**4**	**0**
1	**1**	**0**	**5**	**2**

4.

		9	6	9
x			9	5
	4	**8**	**4**	**5**
8	**7**	**2**	**1**	**0**
9	**2**	**0**	**5**	**5**

5.

		7	4	0
x			9	6
	4	**4**	**4**	**0**
6	**6**	**6**	**0**	**0**
7	**1**	**0**	**4**	**0**

6.

		3	6	2
x			5	8
	2	**8**	**9**	**6**
1	**8**	**1**	**0**	**0**
2	**0**	**9**	**9**	**6**

7.

		3	0	5
x			7	1
		3	**0**	**5**
2	**1**	**3**	**5**	**0**
2	**1**	**6**	**5**	**5**

8.

		3	7	0
x			6	4
	1	**4**	**8**	**0**
2	**2**	**2**	**0**	**0**
2	**3**	**6**	**8**	**0**

9.

		5	8	4
x			1	5
	2	**9**	**2**	**0**
	5	**8**	**4**	**0**
	8	**7**	**6**	**0**

10.

		8	5	1
x			8	9
	7	**6**	**5**	**9**
6	**8**	**0**	**8**	**0**
7	**5**	**7**	**3**	**9**

11.

		7	4	9
x			9	8
	5	**9**	**9**	**2**
6	**7**	**4**	**1**	**0**
7	**3**	**4**	**0**	**2**

12.

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

13.

		6	4	6
x			1	0
				0
	6	**4**	**6**	**0**
	6	**4**	**6**	**0**

14.

		7	0	9
x			1	7
	4	**9**	**6**	**3**
	7	**0**	**9**	**0**
1	**2**	**0**	**5**	**3**

15.

		9	1	4
x			5	7
	6	**3**	**9**	**8**
4	**5**	**7**	**0**	**0**
5	**2**	**0**	**9**	**8**

16.

		7	1	8
x			4	5
	3	**5**	**9**	**0**
2	**8**	**7**	**2**	**0**
3	**2**	**3**	**1**	**0**

Long Multiplication Practice – 4 Digits x 2 Digits: Answers

question	answer			
	1. 2 1 9 0 x 6 9 **1 9 7 1 0** **1 3 1 4 0 0** **1 5 1 1 1 0**	**2.** 1 3 4 2 x 5 2 **2 6 8 4** **6 7 1 0 0** **6 9 7 8 4**	**3.** 1 5 2 1 x 7 3 **4 5 6 3** **1 0 6 4 7 0** **1 1 1 0 3 3**	**4.** 1 1 4 3 x 3 4 **4 5 7 2** **3 4 2 9 0** **3 8 8 6 2**
	5. 2 4 6 8 x 2 7 **1 7 2 7 6** **4 9 3 6 0** **6 6 6 3 6**	**6.** 1 8 9 5 x 4 6 **1 1 3 7 0** **7 5 8 0 0** **8 7 1 7 0**	**7.** 1 4 6 2 x 7 0 **0** **1 0 2 3 4 0** **1 0 2 3 4 0**	**8.** 1 2 3 9 x 1 9 **1 1 1 5 1** **1 2 3 9 0** **2 3 5 4 1**
	9. 1 3 5 9 x 7 7 **9 5 1 3** **9 5 1 3 0** **1 0 4 6 4 3**	**10.** 2 1 2 7 x 4 8 **1 7 0 1 6** **8 5 0 8 0** **1 0 2 0 9 6**	**11.** 1 9 2 0 x 1 2 **3 8 4 0** **1 9 2 0 0** **2 3 0 4 0**	**12.** 2 2 9 1 x 4 0 **0** **9 1 6 4 0** **9 1 6 4 0**
	13. 2 3 1 6 x 9 0 **0** **2 0 8 4 4 0** **2 0 8 4 4 0**	**14.** 1 0 7 4 x 1 9 **9 6 6 6** **1 0 7 4 0** **2 0 4 0 6**	**15.** 2 1 9 6 x 4 5 **1 0 9 8 0** **8 7 8 4 0** **9 8 8 2 0**	**16.** 1 8 8 6 x 1 7 **1 3 2 0 2** **1 8 8 6 0** **3 2 0 6 2**

Further Practice – Column Multiplication

Name : _____ Score : _____

Teacher : _____ Date : _____

1129 x 35 = 39515	1255 x 85 = 106675	2233 x 40 = 89320	1644 x 86 = 141384
1501 x 56 = 84056	2268 x 76 = 172368	1777 x 74 = 131498	1224 x 12 = 14688
1070 x 99 = 105930	2314 x 79 = 182806	1426 x 90 = 128340	2325 x 65 = 151125

Challenge – Column Multiplication

Name : _____ Score : _____

Teacher : _____ Date : _____

1223 x 928 = 1134944	1798 x 955 = 1717090	1688 x 711 = 1200168	1158 x 954 = 1104732
1868 x 334 = 623912	1056 x 236 = 249216	1709 x 940 = 1606460	2070 x 853 = 1765710
1291 x 438 = 565458	2298 x 248 = 569904	1727 x 415 = 716705	1260 x 665 = 837900

Application – Column Multiplication

Use a formal method to calculate the answers to these questions.

1. There are 15 biscuits in a packet. A shop orders 156 packets. How many biscuits will be in the 156 packets? **2340**
2. A school buys 172 boxes of pencils. Each box has 12 pencils. How many pencils has the school bought? **2064**
3. A wholesaler sells apples for 17p each. A grocer buys 197 apples. How much will they cost? **3349 £33.49**
4. It takes 18 minutes to make a toy car. How many minutes will it take to make 205 cars? **3690**
5. A machine makes 16 dice in a minute. A working day is 264 minutes. How many dice are made in 264 minutes? **4224**
6. A cinema has 21 screens. Each screen has 297 seats. How many seats are there in the cinema? **6237**
7. Eggs are sold in trays of 24. In a week, a farmer sells 372 trays. How many eggs does he sell in one week? **8928**
8. A bag of nails contains 613 nails. A hardware store has 23 bags. How many nails are in the 23 bags? **14 099**
9. There are 27 children in a class. Each child pays £7.49 for a school trip. How much do they pay altogether? **20 223 £202.23**
10. A football club has an average attendance of 859 people to each match. What is the total attendance for the 29 matches played in a season? **24 911**

Multiplication

Practice - Short Division

Answers

1. Can you use the written method for division to calculate the answers to these questions?
   a) 56 ÷ 4 = **14**
   b) 48 ÷ 3 = **16**
   c) 96 ÷ 6 = **16**
   d) 110 ÷ 5 = **22**
   e) 136 ÷ 8 = **17**

2. Now try these. They have remainders. (use the correct symbol to represent 'r' for remainder)
   a) 27 ÷ 5 = **5r2**
   b) 49 ÷ 4 = **12r1**
   c) 74 ÷ 6 = **12r2**
   d) 34 ÷ 3 = **11r1**
   e) 67 ÷ 9 = **7r4**

Answers

1. Use the short method of division to calculate your answers. You can do it!
   a) 73 ÷ 5 = **14r3**
   b) 57 ÷ 4 = **14r1**
   c) 92 ÷ 3 = **30r2**
   d) 99 ÷ 8 = **12r3**
   e) 77 ÷ 6 = **12r5**

2. Well done! Now try these three-digit calculations.
   a) 379 ÷ 3 = **126r1**
   b) 649 ÷ 9 = **72r1**
   c) 483 ÷ 4 = **120r3**
   d) 114÷ 5 = **22r4**
   e) 704 ÷ 6 = **117r2**

3. How can you identify multiples of 5? They end in 0 or 5. Use what you know about multiples of 5 to predict whether these division calculations will have a remainder. Calculate the answers to see if you were correct.
   a) 2465 ÷ 5 = **493 no remainder**
   b) 3942 ÷ 5 = **788r2**
   c) 7260 ÷ 5 = **1452 no remainder**

Further Practice - Short Division

Answers

1. Use the short method of division to calculate your answers. You can do it!
   a) 73 ÷ 5 = **14r3**
   b) 57 ÷ 4 = **14r1**
   c) 92 ÷ 3 = **30r2**
   d) 99 ÷ 8 = **12r3**
   e) 77 ÷ 6 = **12r5**

2. Well done! Now try these three-digit calculations.
   a) 379 ÷ 3 = **126r1**
   b) 649 ÷ 9 = **72r1**
   c) 483 ÷ 4 = **120r3**
   d) 114÷ 5 = **22r4**
   e) 704 ÷ 6 = **117r2**

3. Can you do these? When you divide by 12, you may have to exchange two-digit numbers.
   a) 220 ÷ 12 = **18r4**
   b) 267 ÷ 12 = **22r3**
   c) 422 ÷ 12 = **35r2**
   d) 328 ÷ 12 = **27r4**
   e) 462 ÷ 12 = **38r6**

Challenge - Short Division

Name : _____

Answer key

Division

No remainder: S1

1) $7 \overline{)2,562} = 366$

2) $5 \overline{)9,305} = 1,861$

3) $4 \overline{)4,616} = 1,154$

4) $9 \overline{)3,807} = 423$

5) $3 \overline{)6,291} = 2,097$

6) $6 \overline{)1,128} = 188$

7) $2 \overline{)8,254} = 4,127$

8) $8 \overline{)5,920} = 740$

9) $7 \overline{)7,483} = 1,069$

Application – Short division

Answers

1. 498 ÷ 3 = **166**
2. 498 ÷ 4 = **124 r 2**
3. 498 ÷ 6 = **83**
4. 498 ÷ 8 = **62 r 2**
5. 498 ÷ 12 = **41 r 6**
6. 100 packs
7. 46 packs
8. Yes
9. Multiple answers possible.

English - Comprehension

Roger's Records

1. D – Nine

Roger says Robert Wadlow was nine when he carried his father upstairs and adds, "That's the same age as me!"

2. A – Carry his father up the stairs

The fact Roger quotes is that Robert Wadlow could carry his father upstairs at nine years old.

3. B – At Christmas

The text says his father had given him a new Book of World Records "every Christmas since then."

4. B – Teacher

It states, "He was a teacher but he didn't know his records."

5. E – Uninterested

His father answers wearily, keeps reading the newspaper, and finally does not reply at all.

6. D – The world's best-selling book

The story mentions tallest man, watermelon seed spit, longest fingernails, and loudest snore — but not best-selling book.

7. C – He has fallen asleep

The description of the newspaper "sprouting legs" and the "wounded warthog" sound shows he has dozed off.

8. A – Shouted

"Yelled" and "shouted" are synonyms.

9. D – Interesting

"Fascinating" means very interesting.

10. A – Appeared

The newspaper "seemed to have sprouted legs," meaning they appeared to grow.

11. D – wounded

"Wounded" describes the warthog, so it is the adjective.

12. D – Proper nouns

"Roger" and "Christmas" are specific names, so they are proper nouns.

13. B

" Them" should not be capitalised.

14. E

Sentence ends with a full stop, not a question mark.

15. C

Missing comma → should be "sugar, eggs".

16. E

The final quotation mark is in the wrong place.

17. E

"oakthorpe" should be capitalised → Oakthorpe.

18. B

"cant"' should be "can't".

19. C

Unnecessary comma → should be "continues to grow".

20. E

Missing closing quotation mark after the question mark.

Verbal Reasoning

GL Techniques – Type Two

TYPE TWO:

road, canal
head, hand
ring, bracelet
mood, moor
heat, light
yellow, red
live, time
root, foundations
trick, prick
book, music
10, 25 (+5!)
metre, litre
cart, part
hot, cold
apple, potato
lead, ink
pentagon, rectangle
look, listen
steam, gas
write, paint

REORDER WORDS TO MAKE A SENTENCE

Your child may have made a different sentence using the words given. This is fine, as long as the correct word has been chosen

1. **present** - *the words can be arranged into the ssentence 'Yesterday was my birthday.'*
2. **open** — *The words can be rearranged into the sentence 'I played with my yo-yo.'*
3. **wellingtons** — *The words can be rearranged into the sentence 'Mud pies are my favourite.'*
4. **hair** — *The words can be rearranged into the sentence 'My dad has a huge mustache*
5. **put** — *The words can be rearranged into the sentence 'I killed the giant.'*
6. **went** — *The words can be rearranged into the sentence 'I forgot my lunchbox.'*
7. **not** — *The words can be rearranged into the sentence 'My hamster really likes grapes.'*
8. **sun** — *The words can be rearranged into the sentence 'The tree blew down in the gale.'*
9. **rain** — *The words can be rearranged into the sentence 'My hair looked like a bird's nest.'*
10. **night** — *The words can be rearranged into the sentence 'I enjoy eating worms.'*
11. **books** — *The words can be rearranged into the sentence 'School was quite fun today.'*
12. **soft** — *The words can be rearranged into the sentence 'My favourite colour is green.'*
13. **close** — *The words can be rearranged into the sentence 'I forgot to put the clocks forward.'*
14. **pyramid** — *The words can be rearranged into the sentence 'We did a project on Egypt.'*
15. **pond** — *The words can be rearranged into the sentence 'My pet tadpole has grown legs.'*

RELATED WORDS

1. **yellow** — *All the words are names of colours.*
2. **rucksack** — *All the words are examples of luggage.*
3. **pigeon** — *All the words are names for types of birds.*
4. **daughter** — *All the words are names for relatives.*
5. **sandal** — *All the words are names for types of shoe.*
6. **drizzle** — *All the words are names for types of wet weather.*
7. **cheetah** — *All the words are names for types of big cat.*
8. **tidy** — *All the words describe ways of giving structure to things.*
9. **poodle** — *All the words are names for breeds of dog.*
10. **fry** — *All the words are ways of cooking things.*
11. **paint** — *All the words describe ways of making an image.*
12. **sphere** — *All the words are examples of three-dimensional shapes.*
13. **daffodil** — *All the words are the names of gard flowers.*
14. **cheek** — *All the words are names of parts of th face.*

1. time — 'a **time** of great scientific achievement
2. organised — 'Britain **organised** an exhibition'
3. world — 'Countries from all over the **world**'
4. held — 'The exhibition was **held**'
5. called — 'building **called** the Crystal Palace.'
6. place — 'had come together in one **place**.'
7. ordinary — 'Many were **ordinary** people'
8. finished — 'When the exhibition **finished**'
9. expensive — 'This was incredibly **expensive**'
10. swept — 'a fire **swept** through the Palace'
11. exists — 'the Palace no longer **exists**'
12. stand — 'the area where it used to **stand**'

Non-Verbal Reasoning

Odd One Out

3. B
In all other figures, the line between the circle and the black shape at the top is thick. (In B the line is thin.)

4. D
All other figures have three wavy lines. (D has three jagged lines.)

5. B
In all other figures, the top and bottom parts of the sock are the same colour.

Complete the Grid

6. D
Working from left to right, the shading of the bottom shape changes from grey to white. The top of the mushroom and its spots swap shadings.

7. D
Working from left to right, each shape changes from being grey with a solid outline in the left-hand column, to being hatched with a dotted outline in the middle column, to being white with a dashed outline in the right-hand column.

8. A
Working from left to right, the three shapes with dashed outlines become white shapes with solid outlines. The white shape with the solid outline becomes grey.

Order and Position — p.10-11

Warm Up

1. *a) star b) triangle c) pentagon d) star e) heart*

2. *Number of figures with the same order of shapes: 3 (the second, third and fifth figures all go from top to bottom in the order: square, trapezium, triangle).*

Find the Figure Like the First Three

3. D
In all figures, the semicircle must overlap one of the star's points.

4. A
In all figures, there must be a four-sided shape on the left-hand side of the figure and a circle on the right-hand side of the figure.

5. B
In all figures, the circles must go from left to right in the order: white, black, black, grey. (The order of the circles is always the same if you start from wherever the white circle is and move right. When the order reaches the right-hand circle, it starts again from the left-hand circle.)

Complete the Pair

6. D
The black segment moves round three places.

7. B
The line and the black dot swap places. The short grey triangle swaps places with the tall grey triangle.

8. C
All of the shapes move one place to the left. (When a shape reaches the far left, it starts again from the far right.)

Rotation — p.12-13

Warm Up

1. *a) C b) A c) A d) C e) C f) A*

2. *Number of identical figures: 2 (the first and second figures).*

Rotate the Figure

3. D
The figure has been rotated 90 degrees clockwise. Options A and B are the wrong shape. Option C is a rotated reflection.

4. A
The figure has been rotated 180 degrees. Options B and C have the wrong shading. In option D, the black and white boxes have swapped positions.

5. C
The figure has been rotated 270 degrees clockwise (or 90 degrees anticlockwise.) Option A has four arrows, instead of three. In options B and D, the arrows are in the wrong positions.

Complete the Series

6. B
The arrows rotate 45 degrees clockwise in each series square. The number of arrows alternates between three and one.

7. D
The whole figure apart from the black triangle rotates 90 degrees anticlockwise in each series square. The black triangle rotates 180 degrees in each series square.

8. A
The circle rotates 180 degrees in each series square. The arrow rotates 45 degrees anticlockwise.

Reflection — p.14-15

Warm Up

1. *a) yes b) no c) yes d) no e) no f) yes*

2. *Number of reflections: 3 (the first, third and fifth figures).*

Reflect the Figure

3. A
Option B is a downwards reflection. Option C has the wrong shading and the question mark has been reflected downwards. Option D has been reflected but has the wrong shading.

Quick Lesson Recap

1)				
		2	3	5
x			7	8
	1	8	8	0
1	6	4	5	0
1	8	3	3	0

2)				
		8	6	9
x			4	7
	6	0	8	3
3	4	7	6	0
4	0	8	4	3

3)	0	4	8	9
6	2	9	3	4

4) 1.025 ÷ 100 = 0.01025

5) 47.2 x 1000 = 47200

6) 89 ÷ 100 = 0.89

Homework – Vocabulary to memorise

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Vocabulary 2

Exercise A

1. Savage
2. Aerial
3. Advise
4. Safeguard
5. Intimate
6. Reunite
7. Glimmer
8. Overthrow
9. Operate
10. Qualify

Exercise B

1. Intimate
2. Qualify
3. Reunite
4. Glimmer
5. Safeguard
6. Overthrow
7. Advise
8. Savage
9. Operate
10. Aerial