BROAD HORIZON
TUITION

11+ Tuition

Year 5

Week 02 - Online

ANSWERS

Contents

Starter Task – Quick Revision

1)				
		4	8	9
X			6	3
	1	**4**	**6**	**7**
2	**9**	**3**	**4**	**0**
3	**0**	**8**	**0**	**7**

2)	**0**	**8**	**6**	**4**
7	6	0	4	8

3)	**0**	**3**	**5**	**7**
9	3	2	1	3

4) 78.2 ÷ 1000 = **0.0782**

5) 0.6 x 1000 = **600**

6) 3.4 ÷ 100 = **0.034**

1. Round 9736 to the nearest hundred = 9700
2. Round 1.2778 to the nearest tenth = 1.3
3. Round 5.3257 to 3 decimal places = 5.326
4. Round 34,621 to the nearest thousand = 35,000

5)

		7	2	4
x			3	9
2	8	2	3	6

6)

		4	8	6
6	2	9	1	6

7)

		6	9	7
8	5	5	7	6

8) $7 \div 1000 = 0.007$

9) $24 \times 1000 = 24{,}000$

10) $90.5 \div 1000 = 0.0905$

Maths

Practice - Rounding Whole Numbers

Rounding Integer Numbers

Round each number to the nearest ten.

1)	33	30	6)	37	40
2)	27	30	7)	47	50
3)	76	80	8)	13	10
4)	52	50	9)	39	40
5)	78	80	10)	57	60

Round each number to the nearest thousand.

1)	5,734	6,000	6)	4,417	4,000
2)	1,547	2,000	7)	6,871	7,000
3)	4,432	4,000	8)	8,465	8,000
4)	8,535	9,000	9)	4,335	4,000
5)	2,345	2,000	10)	4,916	5,000

Further Practice - Rounding Decimal Numbers

Rounding Decimal Numbers

Round each number to the nearest hundredth.

1)	8.939	8.94	6)	1.911	1.91
2)	3.517	3.52	7)	8.927	8.93
3)	3.188	3.19	8)	9.537	9.54
4)	5.256	5.26	9)	9.292	9.29
5)	7.392	7.39	10)	5.588	5.59

Round each number to the nearest thousandth.

1)	7.5729	7.573	6)	6.5774	6.577
2)	6.8397	6.840	7)	5.1674	5.167
3)	6.3288	6.329	8)	8.4793	8.479
4)	1.8435	1.844	9)	2.1944	2.194
5)	5.2346	5.235	10)	6.1686	6.169

Round Decimal Numbers **Answers**

Round decimals of two decimal places to whole numbers

Aim: I can round decimal numbers.

Round the following decimal numbers to the nearest whole number.

3.54	**4**	3.57	**4**	6.17	**6**
7.42	**7**	8.69	**9**	7.48	**7**
8.44	**8**	4.09	**4**	1.23	**1**
4.34	**4**	8.95	**9**	7.47	**7**
6.71	**7**	4.68	**5**	0.01	**0**
6.75	**7**	6.42	**6**	0.92	**1**
8.54	**9**	5.54	**6**	7.71	**8**
1.39	**1**	3.33	**3**	6.3	**6**
3.75	**4**	2.96	**3**	7.16	**7**
6.5	**7**	9.13	**9**	4.53	**5**

Application - Rounding

Rounding to the nearest 10 and 100 - Answers

Aim: I can use my knowledge of rounding to the nearest ten and hundred to solve word

Round these to the nearest 10 and 100

2435	3756	9879	3375	2142	1664	678
2440	**3760**	**9880**	**3380**	**2140**	**1660**	**680**
2400	**3800**	**9900**	**3400**	**2100**	**1700**	**700**

1. Four friends won £38 856.00 in the lottery and they split it equally between them.

   How much did each friend win?

   Round their individual winnings to the nearest 10 **£9710**

   Round their individual winnings to the nearest 100 **£9700**

   Round their total winnings to the nearest 1000 **£10 000**

2. The table below shows the 2013 traffic survey of the total number of vehicles to pass over the Forth Road Bridge from January to June. Complete the table by rounding to the nearest 10 and nearest 100.

Month	Total	Round to nearest 10	Round to nearest 100
Jan	1 808 012	**1 808 010**	**1 808 000**
Feb	1 873 150	**1 873 150**	**1 873 200**
Mar	2 067 401	**2 067 400**	**2 067 400**
Apr	2 147 666	**2 147 670**	**2 147 700**
May	2 301 024	**2 301 020**	**2 301 000**
Jun	2 229 848	**2 229 850**	**2 229 800**

3. It has been reported that the Ferrari 458 Italia will cost from £149 246.00

   Round this to the nearest 10 **£149 250.00**

   Round this to the nearest 100 **£149 200.00**

   Round this to the nearest 1000 **£149 000.00**

Practice - BIDMAS – Order of Operations

Solve.

1) $5^2 + 26 \div 2 - 67$

Ans = **– 29**

2) $16 \times 2^3 - 19 + 3^2$

Ans = **118**

3) $19 - 10 \div 5 + 6^2 \times 2$

Ans = **89**

4) $4^2 \times 3 - 2^4 + 21 \div 7$

Ans = **35**

5) $8^2 + 1 \times 5 - 45$

Ans = **24**

6) $24 \div 3 + 5^3 - 13^2$

Ans = **– 36**

7) $48 \div 12 - 4^3 + 3$

Ans = **– 57**

8) $9^2 + 2 \times 3 \div 6 - 49$

Ans = **33**

9) $3 \times 2^5 + 15 - 12^2$

Ans = **– 33**

10) $8 + 88 \div 11 - 4^3 + 2$

Ans = **– 46**

Challenge - BIDMAS – Order of Operations

Solve.

1) $28 \div 7 \times (6 + 7) - (19 + 25)$

Ans = **8**

2) $15 + 2 \times (16 \div 4) + 5 \times 2$

Ans = **33**

3) $36 \div 3 + (10 \times 3) - 18$

Ans = **24**

4) $76 \div (23 - 21) \times 2 + 9$

Ans = **85**

5) $16 + (24 - 4) \times 3 + 19$

Ans = **95**

6) $58 \div 2 + (2 \times 7) + 15 - 42$

Ans = **16**

7) $9 \times 48 \div (3 + 5) - 13$

Ans = **41**

8) $(94 - 16) \div 3 + 2 \times 6$

Ans = **38**

9) $64 \div (16 \times 4) + 12 - (7 + 5)$

Ans = **1**

10) $7 \times (2 + 4) - 63 - 24$

Ans = **– 45**

Solve.

1) $90 \div (2 \times 5) + 13 - 34$

Ans = **– 12**

2) $5 \times (7 + 11) - 56 \div (2 \times 4)$

Ans = **83**

3) $(39 - 13) \div 2 \times 5 - 45$

Ans = **20**

4) $28 \div (4 + 10) \times (4 + 24) \div 2$

Ans = **28**

5) $(21 \div 3) + 27 - (8 \times 5) + 75$

Ans = **69**

6) $39 + (74 - 63) \times 4 + 16$

Ans = **99**

7) $(12 + 8) \times 3 \div 4 + 15$

Ans = **30**

8) $3 \times (16 \div 2) + 16 \times 5$

Ans = **104**

9) $11 \times 5 - (72 + 18) \div 5$

Ans = **37**

10) $(64 \div 8) + 7 \times 8 + (40 - 38)$

Ans = **66**

Verbal Reasoning

GL Techniques – Type Three

TYPE THREE:

COLD, BOUND
LOUD, PATCH
SIGH, CUTE
PLAN, TRAMP
PEN, SHOUT
BAT, BOUT
SAP, OPEN
LOG, MONTH
CAMP, PRAY
HEAP, PITCH
MEAL, PETAL
BEAK, CRAMP
CHIN, BEAST
SON, ODOUR
RAIN, PLANT
IRE, FLOWER
GILT, POUND
LOCK, CHIP
PAIN, TRAM
BIND, SLAY

GL Techniques – Type Four

TYPE FOUR:

policeman
upon
satin
postman
wither
deckchair
housewife
beat
mean
haystack
message
nearby
football
noon
rather
letterbox
slither
cargoes
blockage
bathroom

Choose a Word + Fill in missing letters

FILL IN MISSING LETTERS

1. begin — *'The audience were excited as they waited for the play to **begin**.'*
2. rushing — *'Fiona was **rushing**, so she forgot her purse.'*
3. cunning — *'The **cunning** fox sneaked into the chicken coop.'*
4. charged — *'Tamwar provoked the bull, so it **charged** towards him.'*
5. examined — *'The doctor **examined** my foot, but it wasn't broken.'*
6. travelled — *'The whole family **travelled** by train to get to the beach.'*
7. squeezed — *'I **squeezed** seven lemons to make some lemonade.'*
8. definitely — *'I **definitely** want to go to the museum tomorrow.'*
9. skilfully — *'Raymond shaped the clay **skilfully** into a tall vase.'*
10. instructions — *'I couldn't find the **instructions** for the computer.'*
11. made — *'Yesterday, I **made** chocolate cakes for the village fete.'*
12. discussion — *'Sonia and Meryl had a **discussion** about their trip to the zoo.'*
13. rowed — *'Ben hired a boat and **rowed** to the haunted island.'*
14. adventure — *'One day, I would like to write an **adventure** novel.'*
15. suitcase — *'My **suitcase** split on the way to the airport.'*

1. medieval — *'Pembroke Castle is a **medieval** castle'*
2. replaced — *'it was **replaced** with a stone castle'*
3. birthplace — *'the **birthplace** of King Henry VII.'*
4. privately — *'it is the largest **privately** owned castle in Wales.'*
5. entertain — *'hosts lots of events, such as falconry displays and storytelling, to **entertain** visitors.'*
6. mythology — *'In Greek **mythology**, Hermes was the son of Zeus'*
7. sandals — *'Hermes wore winged **sandals** on his feet'*
8. delivering — *'he could travel between the gods and the mortals, **delivering** messages'*
9. running — *'Hermes was believed to have invented **running** races'*
10. athletics — *'he was known as the god of **athletics**.'*
11. different — *'many **different** species of whale.'*
12. length — *'which can reach a **length** of 30 metres.'*
13. existed — *'the largest brain of any animal that has ever **existed**.'*
14. Despite — *'**Despite** their great size'*
15. creatures— *'eating tiny **creatures** like planktor*

Non-Verbal Reasoning

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.

4. **B**

Option A has a solid outline and the black and white shapes have swapped positions. In option C, the two inner shapes have each been rotated 45 degrees separately. Option D is a downwards reflection.

5. **C**
In option A, the arrow has not been reflected. In option B, the flag shape has not been reflected and the arrow shape is wrong. Option D has the wrong shading.

Complete the Grid

6. **B**
Working from top to bottom, the figure reflects downwards.

7. **D**
Working from left to right, the figure reflects across in each grid square. The colour of the top shape changes from white to grey to black.

8. **B**
Working from top to bottom, the figure reflects across.

Layering

Warm Up

1. a) circle b) triangle c) circle
d) square e) triangle f) square

2. Number of ice creams: 4
(the first, second, fourth and sixth ice creams all have a front scoop that is hatched, a middle scoop that is dotted and a back scoop that is grey).

Odd One Out

3. **D**
In all other figures, the black shape is at the front, and the white shape is at the back.

4. **C**
In all other figures, the cross-hatched lemon is at the back and the dotted orange is at the front.

5. **E**
In all other figures, the black shapes are identical to the white shape made by the overlap of the two grey shapes.

Complete the Pair

6. **A**
The white inner shape made by the overlap of the other two shapes is cut out. The cut-out shape takes the shading of the first two shapes.

7. **D**
All of the overlapping lines disappear. The top shape moves to the back, and the bottom shape moves to the front.

8. **A**
The shape at the front of the top three shapes moves to the back. (In B, the white shape has also moved to the front.)

3D Shapes

Warm Up

1. a) 2 b) 3 c) 3 d) 4 e) 5 f) 4

2. Number of figures which are different views of the figure in the square: 2
(the first option is the figure viewed from the back and the third option is the figure viewed from the right).

Look at the Figure from the Top

3. **D**
The figure should have two cubes at the front, which rules out options A and B. There are five cubes visible from above, which rules out option C.

4. **D**
There should be two cubes at the back of the figure, which rules out option A. There should be five cubes visible from above, which rules out options B and C.

5. **D**
There should be five cubes visible from above, which rules out options A and B. There should be a line of three cubes at the front of the figure, which rules out option C.

Look at the Figure from the Right

6. **D**
There should be a white block on the right-hand side of the figure, sticking out at the front, which rules out options A and C. There should be a cube in the middle, which rules out option B.

7. **B**
There should be a white block two cubes long at the front of the figure, on the bottom, which rules out options A and C. This white block should stick out on the left-hand side, which rules out option D.

8. **D**
There should be a white cube on top of a grey block, which rules out options A and C. There should be a white block two cubes long at the front of the figure, which rules out option B.

SPOTTING PATTERNS

Shapes — p.2-3

Warm Up

1. a) 4 b) 3 c) 8 d) 7 e) 6 f) 4 g) 10

2. a) 2 b) 1 c) 4 d) 0 e) 2 f) 1 g) 5

3. a) E.g. every shape has six sides.
b) E.g. every shape has one curved line.

Odd One Out

4. **A**
All other figures are symmetrical along the dotted line.

5. **C**
All other figures have a pentagon.

6. **C**
In all other figures, the large shape has six sides.

7. **B**
In all other figures, the two shapes have the same number of sides.

Complete the Series

8. **B**
In each series square, the shape gets bigger and alternates between a black triangle and a grey square.

9. **D**
In each series square, the shape gains a side. The hatching alternates between vertical and horizontal.

10. **C**
In each series square, the shape has one more line of symmetry.

Counting — p.4-5

Warm Up

1. a) 4 b) 4 c) 5 d) 3 e) 6 f) 7 g) 5

2. a) 1 b) 4 c) 2 d) 5 e) 2 f) 3 g) 7

3. a) 6 b) 4 c) 4 d) 6 e) 6 f) 4 g) 2
They're all even numbers.

Find the Figure Like the First Two

4. **A**
In all figures, there must be three grey circles.

5. **D**
In all figures, the number of crosses and the number of rectangles must add up to four.

6. **D**
In all figures, the number of white arrows must be double the number of black arrows.

7. **D**
All figures must have exactly two black squares.

Complete the Square Grid

8. **B**
Working from left to right, the number of squares alternates between four and five. All the squares in each column are the same colour.

9. **C**
Each number of lines (one, two and three) only appears once in each row and column.

10. **D**
In each row, the number of shapes in the right-hand grid square equals the number in the left-hand grid square added to the number in the middle grid square.

Quick Lesson Recap

1. Round 4587 to the nearest hundred = 4600

2. Round 6.214 to the nearest hundredth = 6.21

3. Round 9.654 to 2 decimal places = 9.65

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

5)	**0**	**3**	**6**	**5**
8	2	9	2	0

6)	**0**	**9**	**9**	**9**
6	5	9	9	4

7) 635 ÷ 1000 = **0.635**

8) 3.6 x 1000 = **3600**

9) 97 ÷ 1000 = **0.097**

Quick Lesson Recap

1) $(2^2 + 6 \times 2) \div 4 - 7 = -3$

2) $8 - 6 \times 2 + 5 = 1$

3) $(6 + 3^2 \div 3) \times 4 + 8 = 44$

4) What is a superlative adjective? Answers may vary

5) What are the comparative and superlative adjectives for the word 'good'? comparative = better superlative = best

6) What are the comparative and superlative adjectives for the word 'bad'?
comparative = worse superlative = worst

Now use some of the methods you have learnt previously to solve these.

7) 452 x 8 = 3616

8) 22,626 ÷ 9 = 2514

9) 85 x 7 = 595

10) 22.7 ÷ 100 = 0.227