



BROAD HORIZON
— T U I T I O N —

11+ Tuition

Year 3

Week 1

ANSWERS

MENTAL ARITHMETIC : YEAR 3 : AUTUMN TERM : WEEK 1

Paper 1	Answer	Paper 2	Answer
1. What number is one more than 274?	275	1. What number is one more than 236?	237
2. What number is one more than 399?	400	2. What number is one more than 499?	500
3. What number is ten more than 541?	551	3. What number is ten more than 423?	433
4. What number is 10 less than 577?	567	4. What number is 10 less than 633?	623
5. Count on 5 from 168.	173	5. Count on 5 from 148.	153
6. Count on 6 from 188.	194	6. Count on 6 from 159.	165
7. Round 33 to the nearest whole ten.	30	7. Round 44 to the nearest whole ten.	40
8. Round 66 to the nearest whole ten.	70	8. Round 77 to the nearest whole ten.	80
9. Round 420 to the nearest whole hundred.	400	9. Round 570 to the nearest whole hundred.	600
10. Round 309 to the nearest whole hundred.	300	10. Round 390 to the nearest whole hundred.	400
Comment:		Comment:	

year 3 week 1 answers: pages 3 + 5-9

ANSWERS**Page 5**

1. four hundred and thirty two
2. six hundred and ninety five

Page 6

1. 354
2. 685
3. 490
4. 715
5. 508

Page 7

1. 3
2. 60
3. 300
4. 3
5. 600
6. 700
7. 10
8. 40
9. 1
10. 600
11. 900
12. 30
13. 5
14. 70
15. 100
16. 80

Page 8

1. 5
2. 70
3. 400
4. 8
5. 900
6. 700
7. 20
8. 50
9. 3
10. 100
11. 5
12. 40
13. 6
14. 20
15. 200
16. 70

Page 9

1. 5
 2. 10
 3. 200
 4. 10
 5. 800
 6. $90 + 9$
- 246, 264, 426, 462, 624, 642

Page 10

1. 4
 2. 20
 3. 300
 4. 20
 5. 900
 6. $80 + 8$
- 159, 195, 519, 591, 915, 951

Page 10

1. ~~445 four hundred and forty five~~

Page 11

1. ~~527 five hundred and twenty seven~~
2. ~~575 five hundred and seventy five~~
3. ~~749 seven hundred and forty nine~~
4. ~~845 eight hundred and forty five~~
5. ~~807 eight hundred and seven~~
6. ~~365 three hundred and sixty five~~
7. ~~840 eight hundred and forty~~
8. ~~141 One hundred and forty one~~

Work out these missing conversion facts

1)	5 tens = <u>50</u> ones	2)	30 ones = <u>3</u> tens
3)	7 hundreds = <u>70</u> tens	4)	40 tens = <u>4</u> hundreds
5)	60 ones = <u>6</u> tens	6)	3 hundreds = <u>30</u> tens
7)	5 hundreds = <u>50</u> tens	8)	1 hundred = <u>100</u> ones
9)	8 tens = <u>80</u> ones	10)	400 ones = <u>4</u> hundreds
11)	4 hundreds = <u>400</u> ones	12)	80 tens = <u>8</u> hundreds
13)	6 tens = <u>60</u> ones	14)	<u>7</u> hundreds = 700 ones
15)	70 ones = <u>7</u> tens	16)	9 hundreds = <u>90</u> tens
17)	60 tens = <u>6</u> hundreds	18)	400 ones = <u>4</u> hundreds
19)	3 tens = <u>30</u> ones	20)	400 ones = <u>40</u> tens

PUZZLE TIME – find the answer to the riddle below in the table!

- I am worth more than 40 tens.
- I am less than 800 ones.
- My tens digit is double my ones digit.
- Who am I?

284	523	<u>742</u>
863	648	821

Code Breaking Answers

★

- 1) 90
- 2) 2
- 3) 10
- 4) 8
- 5) 7
- 6) 4
- 7) 40
- 8) 30

★★

- 1) 70
- 2) 9
- 3) 20
- 4) 8
- 5) 900
- 6) 60
- 7) 40
- 8) 300

★★★

- 1) 900
- 2) 20
- 3) 50
- 4) 90
- 5) 4000
- 6) 5
- 7) 3000
- 8) 100

Section One — Working with Numbers

Pages 2-3

Look at the place value of the digits in the options. Start with the value of the digits on the left. If these have the same place value and are the same number, look at the values of the next lot of digits to the right until you find the biggest number.

- 1) **D**
- 2) **E**
- 3) **B**
- 4) **D**
- 5) **A**

Think about the place value columns and which digits go into which columns. If there are no tens or units then you need to put a zero in that column.

- 6) **675**
- 7) **726**
- 8) **989**
- 9) **212**
- 10) **402**

Start at the number to the left of the arrow and try counting up along the points in 1s, 2s, 5s and 10s and see which one gets you to the next number.

11) **17**

Counting in 1s along the points takes you from 16 to 18. The arrow is pointing at one point after 16, which is 17.

12) **30**

Counting in 10s along the points takes you from 20 to 40. The arrow is pointing at one point after 20, which is 30.

13) **12**

Counting in 2s along the points takes you from 10 to 20. The arrow is pointing at one point after 10, which is 12.

14) **20**

Counting in 5s along the points takes you from 0 to 25.

The arrow is pointing at four points after 0, which is 20 (5, 10, 15, 20).

15) **180**

Counting in 10s along the points takes you from 150 to 200.

The arrow is pointing at three points after 150, which is 180 (160, 170, 180).

Some questions will be answered in the children's own words. Answers to these questions are given in *italics*. Any answers that seem to be in line with these should be marked correct.

Paper 1

- 1 he sent down thunder and rain
- 2 an iron fork
- 3 to market
- 4 not to give the Thunder God a drink
- 5 *He was used to standing on the ground and on his own two feet.*
- 6 *He felt triumphant/pleased.*
- 7 'There!' said the farmer triumphantly.
- 8 *He went to buy some herbs.*
- 9 *Any sensible answer that shows the child understands that something important will happen, e.g. the Thunder God will get away.*
- 10 helped
- 11 played
- 12 flown
- 13 worn
- 14 kicked
- 15 read
- 16 tennis
- 17 football
- 18 rowing
- 19–20 "The holiday was great," said Meena.
- 21–22 "Look at the dog swimming!" laughed Stan.
- 23 cat
- 24 chicken
- 25 horse
- 26 pig
- 27 rat
- 28 pencil
- 29 ruler
- 30 rubber

Paper 2

- 1 by a zip and buttons
- 2 work
- 3 because she was late for work
- 4 Bella
- 5 *Puzzled, confused.*
- 6 Curly and red.
- 7 *He was cross/he scowled/he muttered under his breath.*
- 8 *She purred.*
- 9 *She rubbed herself against Bill's ankles.*
- 10 *Any answer that suggests that they thought that wearing a dress was quite normal for Bill e.g. The behaviour of Bill's mum and dad was very strange, as they seemed to think it was perfectly normal for him to wear a dress.*
- 11 candle
- 12 scramble
- 13 ankle
- 14 stumble
- 15–20 John Smudge Brighton Sunday The March
- 21 forgotten
- 22 beginner
- 23 preferred
- 24 reasonable
- 25 accessing
- 26 untidy
- 27 inactive
- 28 disagree
- 29 disobey
- 30 misbehave

Paper 3

- 1 Brazil
- 2 the greenhouse
- 3 because his leg had been bitten
- 4 *Either because he was losing 9–2 or because his shot missed by a long way.*
- 5 *Four of: the hedge, the conservatory, the tree, the greenhouse, the flowerbed, Simon's leg.*
- 6 *He liked chips rather a lot.*

- 7 *The boys will soon be playing cricket.*
 8 *Any answer that suggests he was angry, e.g. Simon's dad was so angry he was considering going to the police about the bites.*

9-11 I like apples, grapes, plums, peaches and pears.

12-13 Shall we play on the swing, slide, climbing frame and roundabout?

14 Jason collects ladybirds, ants, spiders and centipedes.

16-17 large small big

18-19 hard easy simple

20-21 weep shout sob

22 a

23 an

24 an

25 an

26 a

27 around

28 without

29 in

30 during

Paper 4

1 Bryony, Jane

2 for talking late

3 the Middle Ages

4 *She was worried about sharing a room with girls she didn't know.*

5 (1) the mining museum, (2) canoeing on the Wye, (3) the leisure centre, (4) Wentbury Castle

6 *She liked the leisure centre because the water slides were very good.*

7 *It was uncomfortable and cold.*

8 unhappy

9 unkind

10 unafraid

11 unfair

12 untidy

13 uncooked

14-17 *The conjunctions when, but, because and while circled*

18 midnight – middle of the night

19 diamond – a hard precious stone

20 starling – a common European bird

21 affection – a feeling of fondness

22 umbrella – a shelter from the rain

23 queue – a line of people

24 **bushes**

25 monster

26 bus

27 **flies**

28 **knives**

29-30 fish

Paper 5

1 the stars were making unusual patterns

2 Finn

3 A rocky place

4 *Her hands were shaking.*

5 *The ship was damaged or in difficulty.*

6 *They had lights on their helmets.*

7 *He thought they would soon have the ship working again.*

8 *Its eyes glowed like suns.*

9-10 *Suitable answers might mention the hideous sound it made, the way the ground trembled, the way it leapt at them, its jaws gaping open, the way the passengers needed to run for safety.*

11-13 Ben and his friend went to London last Thursday.

14-18 They went to London Zoo and Oxford Street.

19-23

	+ly
happy	happily
tragic	tragically
gentle	gently
music	musically
grumpy	grumpily

24 "Help, I'm stuck in the mud!" screamed Nasar.

25 "Where are you going?" Miss Thornton asked.

26 "Look at the clown!" giggled Caroline.

27 "I can't find my swimming costume," Joe complained.

28 *dash, sprint, jog*

1 Long vowel sounds p4

1 Long: tail late sleep day away meat sow pie mite cute meet plate write food
Short: pot brick sit cat set hat fit lip

2 a heat b tree c bead d seat e cheese

3 Possible answers include:

a coat boat loan b threw blew mews c neat meet wheat

d plain plane crane

4 a cleaned / teeth / loose b played / paint / floor c boat / harbour / quite

d cream / feel / cool e Three / boy / down / slide

Spotting Patterns

Pages 2-3 — Shapes

Warm Up

- 1) a) 6 b) 4 c) 4 d) 3 e) 5 f) 4
- 2) Number of heads that are the same shape: 3
(the heads in the first, third and fourth figures are also six-sided shapes).

Find the Figure Like the First Two

- 3) D
All figures must have a white square at the bottom.
- 4) B
All figures must have a small white pentagon in the middle of a large grey shape.
- 5) D
All figures must have a white diamond at the end of each antenna.

Complete the Grid

- 6) B
Working from left to right, the two circles at the top change to become the same as the large shape.
- 7) A
Working from left to right, the half-shape becomes full and changes from black to white.
- 8) B
Working from left to right, the circles become triangles.

Pages 4-5 — Counting

Warm Up

- 1) a) 3 b) 2 c) 4 d) 3 e) 5 f) 6
- 2) Number of bees with the same number of stripes: 3
(the first, third and fifth figures all have 3 stripes).

Find the Figure Like the First Three

- 3) D
In all figures, the boat must have four white sails.
- 4) A
All figures must have five white circles.
- 5) C
In all figures, there must be two black circles.

Complete the Series

- 6) B
An extra tooth is added to the crocodile's mouth in each series square.
- 7) C
The number of straight lines making up the snake goes down by one in each series square.
- 8) B
Two white hexagons are added in each series square.

Pages 6-7 — Pointing

Warm Up

- 1) a) 2 b) 0 c) 3 d) 1 e) 3 f) 4
- 2) Number of pencils: 5

Odd One Out

- 3) A
In all other figures, the arrow is pointing at the spider. (In A it is pointing at the fly.)
- 4) B
In all other figures, the arrow is pointing at one of the hexagon's corners. (In B it is pointing at one of its sides.)
- 5) E
In all other figures, the spiral goes in a clockwise direction if you start from the centre. (In E it goes in an anticlockwise direction.)

Find the Figure Like the First Two

- 6) D
All figures must have two white signs on a grey signpost. One sign must point to the left and the other must point to the right.
- 7) C
All figures must have a white moon shape and one white star on a large black octagon. The two ends of the moon shape must be facing towards the star.
- 8) D
In all figures, the white triangle must point towards the side of the four-sided shape which curves inwards.

Pages 8-9 — Shading and Line Types

Warm Up

- 1) a) 2 b) 3 c) 5 d) 5 e) 4 f) 6
- 2) Number of shirts with the same kind of stripes: 2
(the second and fifth figures have dashed stripes).

Odd One Out

- 3) D
All other figures have a large shape with a thick outline and a small shape with a thin outline. (In D the small shape has a thick outline and the large shape has a thin outline.)
- 4) C
In all other figures, the top and bottom shapes are both grey. (In C they are both white.)
- 5) D
In all other figures, the basket is cross-hatched. (In D the basket is hatched.)

Complete the Grid

- 6) C
Working from left to right, the hatching changes from going diagonally down to the left to diagonally down to the right.
- 7) C
Working from left to right, the shadings swap.
- 8) A
Working from left to right, any shapes that the arrows point to in the first grid square turn black in the second grid square and the arrows disappear.

Pages 10-11 — Order and Position

Warm Up

- 1) a) top b) right c) left
d) top e) bottom f) right
- 2) Number of figures with the same order of small shapes: 2
(the first and third figures both go clockwise in the order: star, triangle, square).