BROAD HORIZON
TUITION

11+ Tuition

Year 5 - Online

Assessment Test 2

ANSWERS

Total: /150 %

Pass mark is 70% 105 / 150

Contents

Overview of Your Scores

	Your Score	%
×/÷ by 10, 100 and 1000	/ 33 marks	
Multiplication	/ 12 marks	
Rounding	/ 40 marks	
BIDMAS	/ 10 marks	
Mean, Mode, Median & Range	/ 20 marks	
Elapsed Time	/ 15 marks	
Negative Numbers	/ 6 marks	
LCM	/ 10 marks	
Verbal Techniques	/ 13 marks	
Non-Verbal Reasoning	/ 17 marks	

Maths	**/120**	**%**
English	**/13**	**%**
Non-Verbal	**/17**	**%**
Total	**/150**	**%**

Maths

Multiplying and Dividing Numbers by 10, 100 and 1000

	x 10	x 1000	x 100
0.003	0.03	3	0.3
1,893.852	18 938.52	1 893 852	189 385.2
600.001	6000.01	600 001	60 000.1

Divide the following numbers by 10, 100 and 1000 to complete the table, giving answers to 3 decimal places.

	÷ 100	÷ 1000	÷ 10
4.08	0.041	0.004	0.408
215.9	2.159	0.216	21.59
9.99	0.100	0.010	0.999
450.04	4.500	0.450	45.004

Complete the following table, giving answers to 3 decimal places.

	÷ 1000	x 100	÷ 10
6.45	0.006	645	0.645
0.501	0.001	50.1	0.050
936	0.936	93 600	93.6
7180	7.18	718 000	718

(33 marks)

Column Multiplication

1046 x 71 = 74266	1961 x 71 = 139231	2100 x 85 = 178500
1920 x 53 = 101760	2198 x 21 = 46158	1386 x 12 = 16632

(6 marks)

Rounding

Round each number to the nearest thou

1) 2,666 3,000

2) 4,274 4,000

3) 3,818 4,000

4) 7,639 8,000

5) 2,197 2,000

6) 51,535 52,000

7) 56,245 56,000

8) 36,636 37,000

9) 29,731 30,000

10) 16,156 16,000

1) 2.531 2.53

2) 4.416 4.42

3) 8.717 8.72

4) 8.683 8.68

5) 5.941 5.94

6) 4.9744 4.97

7) 3.9632 3.96

8) 8.3542 8.35

9) 4.1713 4.17

10) 1.8288 1.83

(20 marks)

BIDMAS – Order of Operations

1) $5 \times (8 - 5) + 5^2$
$5 \times 3 + 5^2$
$5 \times 3 + 25$
$15 + 25$
40

2) $(12 \times 2 - 7^2) + 5$
$(12 \times 2 - 49) + 5$
$(24 - 49) + 5$
$-25 + 5$
-20

3) $6 \times (12 - 3) - 2^2$
$6 \times 9 - 2^2$
$6 \times 9 - 4$
$54 - 4$
50

4) $(84 - 6^2) \div (11 - 7)$
$(84 - 36) \div (11 - 7)$
$48 \div 4$
12

5) $(55 - 5) \div 2 + 7^2$
$50 \div 2 + 7^2$
$50 \div 2 + 49$
$25 + 49$
74

6) $(53 - 3) \div 10 + 6^2$
$50 \div 10 + 6^2$
$50 \div 10 + 36$
$5 + 36$
41

7) $(76 - 4^2) \div (7 + 5)$
$(76 - 16) \div (7 + 5)$
$60 \div 12$
5

8) $(3 + 4)^2 + (12 \div 4)$
$7^2 + 3$
$49 + 3$
52

9) $(2 + 2)^2 + (18 \div 6)$
$4^2 + 3$
$16 + 3$
19

10) $(7 \times 8 + 2^2) + 3$
$(7 \times 8 + 4) + 3$
$(56 + 4) + 3$
$60 + 3$
63

'ks)

Mean, Mode, Median and Range

1) 2, 2, 4, 6, 6, 4
2, 2, 4, 4, 6, 6

Mean 4 Median 4 Mode 2, 4, 6 Range 4

2) 9, 7, 8, 6, 5, 6, 2, 8, 3
2, 3, 5, 6, 6, 7, 8, 8, 9

Mean 6 Median 6 Mode 6, 8 Range 7

3) 5, 4, 3, 8, 6, 7, 9
3, 4, 5, 6, 7, 8, 9

Mean 6 Median 6 Mode None Range 6

4) 7, 6, 7, 1, 2, 2, 2, 5
1, 2, 2, 2, 5, 6, 7, 7

Mean 4 Median 3.5 Mode 2 Range 6

5) 2, 8, 7, 2, 6, 4, 8, 3
2, 2, 3, 4, 6, 7, 8, 8

1

Mean 5 Median 5 Mode 2, 8 Range 6

(20 marks)

Elapsed Time

Q.No	Start Time	End Time	Elapsed Time
1)	4:35 A.M.	**6:20 P.M.**	13 hours and 45 minutes
2)	**9:30 P.M.**	5:45 A.M.	8 hours and 15 minutes
3)	11:20 A.M.	8:25 P.M.	**9 hours and 5 minutes**
4)	**1:05 P.M.**	11:10 A.M.	22 hours and 5 minutes
5)	6:00 P.M.	3:15 A.M.	**9 hours and 15 minutes**
6)	8:35 A.M.	**4:55 P.M.**	8 hours and 20 minutes
7)	**12:40 P.M.**	1:30 A.M.	50 minutes
8)	5:30 A.M.	**3:35 P.M.**	10 hours and 5 minutes
9)	10:55 A.M.	7:15 P.M.	**8 hours and 20 minutes**
10)	8:10 P.M.	2:50 A.M.	**6 hours and 40 minutes**
11)	7:40 A.M.	**4:05 P.M.**	8 hours and 25 minutes
12)	**2:25 P.M.**	6:30 A.M.	16 hours and 5 minutes
13)	11:20 A.M.	3:45 P.M.	**4 hours and 25 minutes**
14)	9:50 P.M.	5:10 A.M.	**7 hours and 20 minutes**
15)	6:35 A.M.	**6:35 P.M.**	12 hours

(15 marks)

Negative Numbers

1) 67 °C

2) £800

3) 64 °C

4) £284

5) 25 °C

6) £-119.50

Lowest Common Multiple

Find the lowest common multiple

Find the least common multiple of each pair of numbers.

1) 3, 4

LCM(3, 4) = **12**

2) 5, 10

LCM(5, 10) = **10**

3) 9, 7

LCM(9, 7) = **63**

4) 12, 6

LCM(12, 6) = **12**

5) 22, 2

LCM(22, 2) = **22**

6) 11, 3

LCM(11, 3) = **33**

7) 7, 18

LCM(7, 18) = **126**

8) 3, 9

LCM(3, 9) = **9**

9) 8, 16

LCM(8, 16) = **16**

10) 13, 2

LCM(13, 2) = **26**

(10 marks)

Verbal Reasoning

GL Techniques

Type 5:

1) 75. that
2) 76. skip
3) 77. swan

Type 6:

4. SHOW
5 STEP

Type 7:

6) 56. arrive depart
7) 57. awake asleep
8) 58. back front __ _____

Type 8:

9) 50. site
10) 51. hops
11) 52. hood

Type 9:

12) 80. WAN AGE GOT
13) 81. FAN IRE GET

(13 marks)

Non-Verbal Reasoning

Section 1 — Changing Bugs

1. C

The bug's body gains a shape which is the same shape as its body (but smaller) and the same colour as its head.

2. B

The bug loses one pair of lines from its wings.

3. D

The tail gains two segments and reflects across.

4. B

The inner shape on the bug's body rotates 180 degrees and its outline becomes dotted instead of dashed.

Section 2 — Complete the Square Grid

1. A

Working from left to right, each grid square rotates 90 degrees clockwise.

2. B

Working from left to right, the shape moves diagonally upwards from the bottom left-hand corner of the first grid square, to the top-right corner of the third grid square. The shading of the shape alternates between black and white.

3. D

The third grid square in each row contains the star from the first grid square in front of the shape from the second grid square.

Section 3 — Reflect the Figure

1. B

In options A and C, the rectangles are in the wrong order. In option D, the bases of the rectangles are not in line.

2. C

Option A is a 90 degree anticlockwise rotation. Option B is a 135 degree anticlockwise rotation. Option D is a 180 degree rotation.

3. A

In option B, all the lines are the same height and there is an extra square. In options C and D, the lines are in the wrong order.

4. D

Option A is reflected, but the white circle is positioned incorrectly. Option B is a 90 degree clockwise rotation. Option C is not reflected and the white circle has moved position.

Section 4 — 3D Building Blocks

1. C

The block on the left of set C moves to become the back right-hand part of the figure on the left. The block on the right of set C rotates 90 degrees anticlockwise in the plane of the page. It then rotates towards you 90 degrees, top-to-bottom to become the front left-hand part of the figure.

2. D

The block on the right of set D rotates towards you 90 degrees top-to-bottom and moves to become the bottom left-hand part of the figure on the left. The block on the bottom-left of set D moves to become the right-hand part of the figure. The block on the top-left of set D moves to become the top left-hand part of the figure.

3. A

The block on the bottom-left of set A rotates 90 degrees in the plane of the page and moves to become the block at the back of the figure on the left. The block on the right of set A rotates 90 degrees right-to-left and moves to become the front left-hand part of the figure.

Section 5 — Complete the Pair

1. C

The two shapes swap shadings.

2. A

The top-right shape is removed.

3. D

The shading of the top inner shape changes from white to black and the whole figure rotates 90 degrees clockwise.

(17 marks)