BROAD HORIZON
TUITION CENTRE

11+ Tuition – Year 4

Week 39

Revision Lesson

ANSWERS

Contents

Maths

Multiply and divide by 10,100,1000

1. **240**
2. **630**
3. **850**
4. **700**

5. **392**
6. **406**
7. **4**
8. **5800**
9. **30.7**
10. **12,500**
11. **43**
12. **0.89**
13. **7.4**
14. **0.09**
15. **5.62**
16. **800**
17. **0.074**
18. **0.369**
19. **0.00085**
20. **9.21**

Word Problem Answers

1. **£850**
2. **360 items**
3. **450 litres**
4. **£12,500**
5. **£700 per month**
6. **£60**
7. **80 metres**
8. **250 kg**
9. **3 litres**
10. **62 km/hour**
11. **20 kg**
12. **45 metres**

Rounding

Nearest Ten:

1. 50
2. 90
3. 140
4. 680
5. 1250

Nearest 100:

1. 100
2. 300
3. 400
4. 800
5. 1000

Nearest 1000

1. 1000
2. 3000
3. 8000
4. 1000
5. 7000

Nearest Tenth

1. 5.7
2. 9.4
3. 1.9
4. 3.2
5. 7.1

Nearest Hundredth

1. 4.57
2. 8.99
3. 2.44
4. 5.56
5. 6.80

Nearest Thousandth

1. 0.433
2. 7.988
3. 2.346
4. 6.000
5. 1.101

Rounding Word Problems

1. **200**
2. **6000**
3. **3.75**
4. **67.9**
5. **9.994**
6. **880**
7. **4.6**
8. **£400**
9. **12.46**
10. **3000**

BIDMAS

1. $6 + 4 \times 2 = 6 + 8 = 14$

Q2. $(8 + 3) \times 2 = 11 \times 2 = 22$

Q3. $20 - 12 \div 3 = 20 - 4 = 16$

Q4. $4 + 5 \times (3 + 2) = 4 + 5 \times 5 = 4 + 25 = 29$

Q5. $(10 - 6)^2 = 4^2 = 16$

Q6. $36 \div 6 + 2 \times 3 = 6 + 6 = 12$

Q7. $5 + 3 \times (4^2 - 10) = 5 + 3 \times 6 = 5 + 18 = 23$

Q8. $100 \div (5 \times 2) = 100 \div 10 = 10$

Q9. $(6 + 2)^2 - 4 \times 3 = 8^2 - 12 = 64 - 12 = 52$

Q10. $50 - [4 \times (2 + 1)] = 50 - (4 \times 3) = 50 - 12 = 38$

Q11. $(7 + 5)^2 \div 2 = 12^2 \div 2 = 144 \div 2 = 72$

Q12. $3 \times (6 + 9) - 7 = 3 \times 15 - 7 = 45 - 7 = 38$

Q13. $(15 - 9)^2 + 8 = 6^2 + 8 = 36 + 8 = 44$

Q14. $81 \div (3 \times 3) + 4 = 81 \div 9 + 4 = 9 + 4 = 13$

Q15. $25 - 3 \times 2^2 = 25 - 3 \times 4 = 25 - 12 = 13$

Q16. $10 + 5 \times [6 - (3 + 1)] = 10 + 5 \times 2 = 10 + 10 = 20$

Q17. $144 \div (4 \times 3) = 144 \div 12 = 12$

Q18. $5^2 + 3 \times 2 = 25 + 6 = 31$

Q19. $2 + 6 \times 3 - 4 = 2 + 18 - 4 = 20 - 4 = 16$

Q20. $(18 - 6)^2 \div 3 = 12^2 \div 3 = 144 \div 3 = 48$

Comprehension

Practice Paper 10

1	Line 1 states that 'Cocos Island is situated approximately 500 kilometres south-west of its nearest neighbour, Costa Rica'. Therefore Costa Rica must be to the north-east of Cocos Island.
2	Lines 8 & 9 state that 'a very well-known and respected Scot named William Thompson'. Therefore he was Scottish.
3	Line 11 state that 'instead they sailed to Cocos Island – in the Pacific Ocean'.
4	Lines 4 & 5 state 'valuable statues and jewellery in its cathedrals and churches'.
5	Line 13 states that 'All of the crew bar Thompson and his first mate, Forbes.'

6	Lines 13 & 14 state that 'The two men said they would show the Spaniards where they had hidden the treasure in return for their lives.'
7	Line 5 states that 'In 1820, many countries'. Then, line 19 states 'Within six months of arriving in Costa Rica'. Finally, line 20 states 'Twenty years later, he happened to meet a man called John Keating and the two became firm friends.' The nearest option is B: 1841.

Verbal Reasoning

TYPE ONE

the(2nd),ball
to,his
across,into
the,quickly
up,down
hot,cold
in,out
it,into
is,milk
slippers,table
be,quiet
no,deck
church,in
shoes,cloakroom
nine,seven
friday,sunday
in,out
at,herself
come,in
fir,bend

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

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

TYPE FOUR:

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

14. g
15. n
16. y
17. d
18. b
19. w

66. fruit vegetable
67. man lady
68. house wall

32. MAT SEAT
33. BAG SANG
34. ROW CLAY
35. LIP SCARF

59. behave
60. football
61. knowledge

TYPE FIVE:

sand
stop
tall
tent
step
sofa
love
done
nest
exit
able
veto
down
sore
heat
hero
axis
hand
note
term

TYPE SIX:

BORE
FARM
PLAY
TOIL
FAIL
FREE
COOK
HEAP
TALK
HAVE
LAST
WELD
HOOF
BALL
BARE
SLEW
PALM
SLIP
FISH
DARK

Non-Verbal Reasoning

SPOTTING PATTERNS

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Shapes

Warm Up

1. 5 7 7 6 8 5

2. *Number of same-sided grey shapes: 2 (the second and fourth figures both have a grey shape with seven sides).*

Find the Figure Like the First Two

3. **D**

In all figures, the large white shape must have four sides.

4. **C**

All figures must have two identical shapes that overlap.

5. **C**

In all figures, there must be two separate shapes - a large shape and a small shape. The small shape must be the same size as a third of the large shape.

Complete the Grid

6. **D**

Working from left to right, the small shape becomes larger, and the old large shape gets smaller and moves inside the new large shape.

7. **A**

Working from leftto right, the number of lines of symmetry of the shape increases bytwo.

8. **D**

Working from left to right, one shape disappears in each grid square. First the smallest shape disappears, and then the largest shape disappears.

Counting

Warm Up

1. 3 3 5 4 4 7

2. *Number of cakes with the same number of layers: 2 (the second and fourth cakes also have four layers).*

Number of cakes ivith the same number of cherries: 1 (the first cake also has four cherries).

Complete the Series

3. **B**

The zebra gains an extra stripe in each series square.

4. **C**

The series alternates betiveen two and three stars . The stars gain an extra point in each series square.

5. **D**

The white shape gains an extra side in each series square. An extra dot is added inside the white shape.

Find the Figure Like the First Three

6. **A**

All stars must have exactly two black points.

7. **A**

All figures must have two black dots and four small inner lines.

8. **D**

All figures must be four-sided white shapes, with three inner lines .

Pointing

Warm Up

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

2. *Number of arrows that point in the same direction: 2 (the second and fourth figures both point diagonally down to the right).*

Odd One Out

3. **E**

In all other figures, the arrow points away from the cannon.

4. **D**

In all other figures, the arrowpoints in a clockwise direction.

5. **A**

In all other figures, the arrow points towards the shape with the Xinside.

Find the Figure Like the First Two

6. **B**

In all figures, the arrow must point in the samedirection as the roof of thehouse.

7. **C**

All figures must have three grey triangles inside the white square . Two of the triangles must point up, and one triangle must point down.

8. **A**

In allfigures, the arrow must point towards the middle of one of the triangles sides.

Rotation — p.12-13

Warm Up

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

2. a) 45 b) 90 c) 45 d) 180 e) 90 f) 180 g) 45

3. Number rotated 90 degrees: 4
Number rotated 180 degrees: 2

Rotate the Figure

4. **A**

The figure is rotated 180 degrees. Option B is a rotated reflection. In options C and D, the hearts have been rotated incorrectly.

5. **C**

The figure is rotated 270 degrees clockwise (or 90 degrees anticlockwise). Option A is a reflection. In option B, the star is positioned incorrectly. In option D, the star and the cut-out section have the wrong number of points.

6. **D**

The figure is rotated 225 degrees clockwise (or 135 degrees anticlockwise). In option A, only the triangle has been rotated. Options B and C are rotated reflections and the circle in C is positioned incorrectly.

7. **B**

The figure is rotated 90 degrees clockwise. Options A and C are the wrong shape and option D is a reflection.

Complete the Series

8. **B**

The figure rotates 45 degrees clockwise in each series square. The circle's shading alternates between black and white.

9. **A**

The entire series square rotates 90 degrees anticlockwise.

10. **D**

The entire series square rotates 90 degrees clockwise. The droplet's shading alternates between black and white.

Reflection — p.14-15

Warm Up

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

2. a) reflected b) rotated c) reflected
   d) reflected e) rotated

3. Number of reflections: 2
   (To work this out, rotate each figure so the black dot is at the top. Then see whether it is a mirror image of the figure in the square.)

Reflect the Figure

4. **A**

Option B is a downwards reflection. Option C has the wrong shading and option D is a different shape.

5. **B**

In option A, the figure has not been reflected and the star has the wrong number of points. Option C is a 90 degree anticlockwise rotation. Option D is a downwards reflection.

Order and Position — p.10-11

Warm Up

1. a) square b) cross c) rectangle
   d) heart e) circle

2. a) star b) pentagon c) hexagon
   d) heart e) star

3. Number of figures: 3

Complete the Hexagonal Grid

4. **A**

Each hexagon has two rectangles and half an ellipse on its inner sides and a triangle on the side opposite the central hexagon.

5. **B**

Going in a clockwise direction around the hexagonal grid, each shape moves one side clockwise.

6. **B**

The figures reflect across the middle of the hexagonal grid.

7. **A**

Moving clockwise from the top hexagon, the position of the arrows changes from bottom, to middle, to top. Then it starts again from the bottom. The grey arrow is always on the left of the black arrow.

Find the Figure Like the First Three

8. E

In all figures, the large black shape must contain a small white square on the right and a small white circle on the left.

9. D

In all figures, the shape at the top must have fewer sides than the shape at the bottom.

10. A

If all figures are rotated so that the arrow points up, the grey circle must be in the bottom left-hand corner of the square.

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.

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 a
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.