**Home Learning 3**

**Q1. (Y4 Standard)**

Here are five angles marked on a grid of squares.

Write the letters of the angles that are **obtuse**.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1 mark

Write the letters of the angles that are **acute**.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1 mark

**Q2. (Y4 Standard)**

A triangle is translated from position **A** to position **B**.

Complete the sentence.

|  |  |  |
| --- | --- | --- |
| The triangle has moved |  | squares to the right |
| and |  | squares down. |

1 mark

**Q3. (Y4 Standard)**

Complete this shape so that it is symmetrical about the mirror line.

Use a ruler.

1 mark

**Q4. (Y4 Standard)**

Alfie places three cubes on a coordinate grid.
The base of his shape is a rectangle.

Complete this sentence:

The four **vertices** of the rectangle are

|  |  |
| --- | --- |
| (2, 3), (5, 3), (5, 4)  and |  |

1 mark

**Q5. (Y4 Standard)**

These three square tiles have symmetrical patterns on them.

Draw the line of symmetry on each tile.

Use a ruler.

2 marks

**Q6.** **(Y5 Standard)**

Circle the **pentagon** with exactly **four acute angles.**

1 mark

**Q7. (Y5 Standard)**

Here is a drawing of a 3-D shape.

Complete the table.

|  |  |  |
| --- | --- | --- |
| **Number of faces** | **Number of vertices** | **Number of edges** |
|   |   |   |

2 marks

**Q8. (Y5 Standard)**

Here are three nets of a cube.

On each net draw **one more dot** so that each cube will have dots on **opposite** faces.



2 marks

**Q9. (Y5 Standard)**

Emma makes a cuboid using 12 cubes.

Write the letter of the cuboid that has a **different** volume from Emma’s cuboid.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1 mark

**Q10. (Y5 Standard)**

In this diagram **R** is an equal distance from **P** and **Q**.

What are the coordinates of **R**?

1 mark

**Q11. (Y6 Standard)**

Layla completes one-and-a-half somersaults in a dive.

How many **degrees** does Layla turn through in her dive?

1 mark

**Q12. (Y6 Standard)**

A shaded **isosceles** triangle is drawn inside a rectangle.

Calculate the size of angle ***a***.

2 marks

**Q13. (Y6 Standard)**

Emily has 6 cubes.

She sticks them together to make this model.

She paints the sides of the model grey all the way round.

She leaves the top and the bottom of the model white.

How many of the cubes in the model have **exactly two** faces painted grey?

1 mark

**Q14. (Y6 Standard)**

The diagram shows two identical squares.

**A** is the point (10, 10)

What are the coordinates of **B** and **C**?

1 mark

1 mark

**Q15. (Y6 Standard)**

Here are diagrams of some 3-D shapes.

Tick each shape that has the same number of faces as vertices.

|  |  |  |
| --- | --- | --- |
|  | Cube |  |
|  | Square-based pyramid |  |
|  | Triangular prism |  |
|  | Triangular-based pyramid |  |

2 marks

Mark schemes

**Q1.**

(a)     *c* **AND** *e*

*Letters may be given in either order.*

**1**

(b)     *a* **AND** *d*

*Letters may be given in either order.*

**1**

**[2]**

**Q2.**

|  |  |  |
| --- | --- | --- |
| ***The triangle has moved*** |  | squares to the right |
| ***and*** |  | squares down. |

**[1]**

**Q3.**

Diagram completed as shown:

*Accept slight inaccuracies in drawing.*

*Diagram need not be shaded.*

**[1]**

**Q4.**

(2, 4)

**[1]**

Question Requirement Mark Additional guidance

**Q5.**

Award **TWO** marks for three lines of symmetry drawn correctly as shown:

If the answer is incorrect, award **ONE** mark for two lines of symmetry
correctly drawn.

*Accept inaccurate drawing provided the intention is clear.*

**Up to 2**

**[2]**

**Q6.**

The correct shape circled as shown:

*Accept alternative unambiguous positive indications, e.g. shape ticked.*

**[1]**

**Q7.**

Award **TWO** marks for the table completed, as shown:

|  |  |  |
| --- | --- | --- |
| **Number of faces** | **Number of vertices** | **Number of edges** |
| 6 | 8 | 12 |

Award **ONE** mark for two correct numbers, correctly placed.

**Up to 2m**

**[2]**

**Q8.**

Award **TWO** marks for three diagrams completed as shown:



*Accept alternative unambiguous indications.*

If the answer is incorrect, award **ONE** mark for two diagrams correct.

**Up to 2**

**U1**

**[2]**

**Q9.**

C

*Accept 18.*

**[1]**

**Q10.**

(50, 15)

**[1]**

**Q11.**

540

**[1]**

**Q12.**

Award **TWO** marks for the correct answer of 104°.

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g:

•        180 − 38 − 38 = a

*Answer need not be obtained for the award of* ***ONE*** *mark.*

**Up to 2**

**[2]**

**Q13.**

4

**U1**

**[1]**

**Q14.**

(a)     (0, 10)

*Coordinates must be written in the correct order.*

*Accept unambiguous answers written on the diagram.*

**1**

(b)     (10, 20)

*If the answer for part (a) is (10, 0)* ***AND*** *the answer to (b) is
(20, 10), award* ***ONE*** *mark only, in the part (b) box.*

**1**

**[2]**

**Q15.**

Award **TWO** marks for both pyramids ticked as shown:

*Accept alternative unambiguous positive indications, e.g. Y.*

If the answer is incorrect, award **ONE** mark for:

•    the two pyramids and not more than one incorrect shape ticked

**OR**

•    only one correct shape ticked and no incorrect shape ticked.

**Up to 2m**

**[2]**