**FFX 3/4 Maths Revision**

**Name:** **Class:** **Date:**

## A Number and the number system

1. (a) A bag has **20** cubes in it. **6** of the cubes are green.
You take one cube out of the bag at random.
Which values below show the **probability** that you take out a cube that is green?
Circle the correct **four** values.

| | | | |
|---|---|---|---|
| $\frac{6}{14}$ | 30% | 0.6 | 3/10 |
| 6% | 3/5 | 6/20 | 0.03 |
| 0.3 | 6/10 | 60% | $\frac{6}{26}$ |

2marks (L6/1)

(b) Write these numbers in order of size, starting with the smallest:

$0.32 \quad \frac{1}{3} \quad 33\% \quad \frac{3}{10}$

---------- 1 mark (L6/1)

## B Calculating

2. Potting compost is made of loam, peat and sand in the ratio of 7 : 3 : 2
If the gardener used 1.5litres of peat, how much compost did he produce?

----------2 marks (L6/3)

3. Which is the best buy?

6 pens for £2.30

OR

5 pens for £1.90

.....2 marks (L6/4)

**C** **Algebra**

4. Solve 5y + 3 = 3y + 14

---------- 2 mark (L6/7)

5. Here are the first five terms of a number sequence.

3 7 11 15 19

(a) Write down an expression, in terms of *n*, for the *n*th term of this sequence.

.....

Adeel says that 319 is a term in the number sequence.

(b) Is Adeel correct?
You must justify your answer.

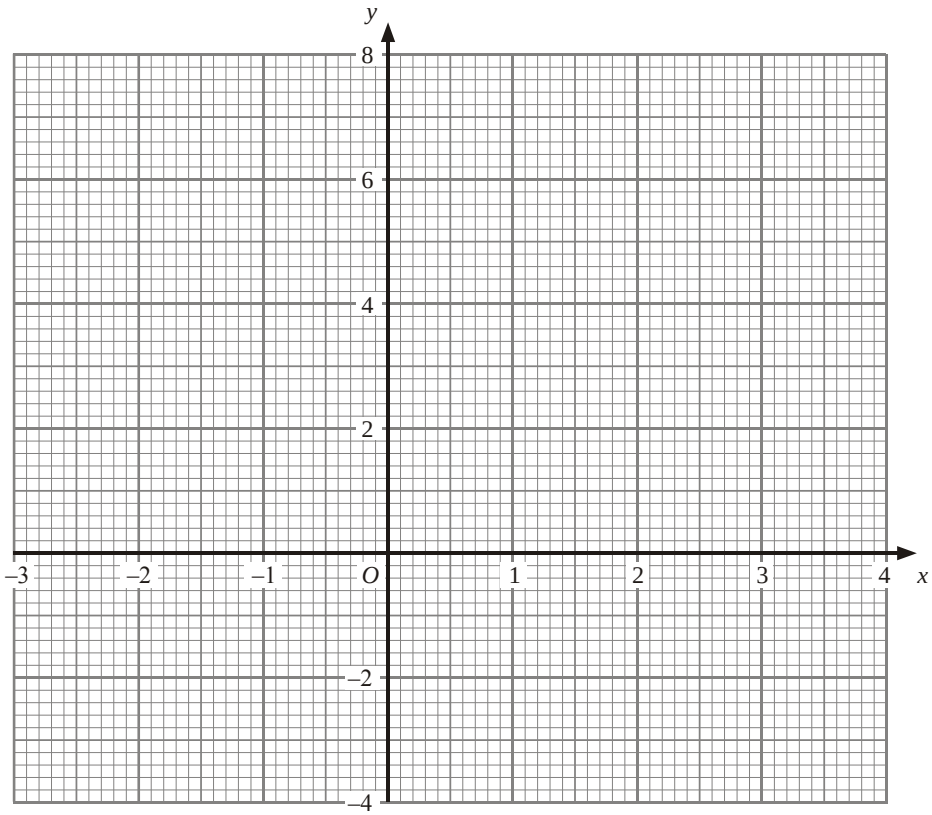
.....

2 marks (L6/8)

6. (a) Complete this table of values for $y = 2x - 1$

| $x$ | –1 | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| $y$ | | | 1 | 3 | 5 | |

1 mark (L6/9)

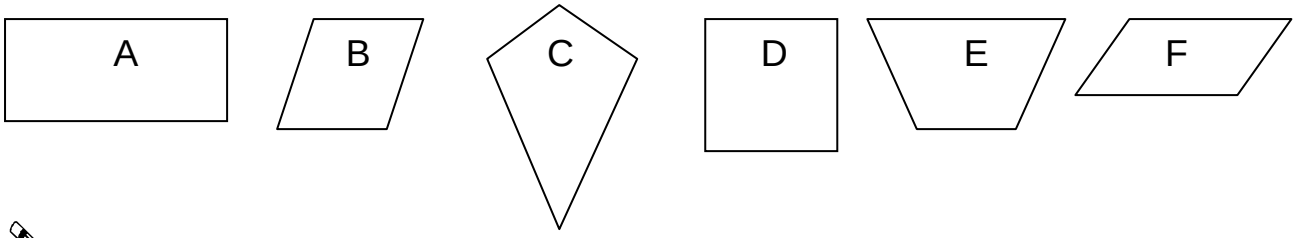



(b) On the grid, draw the graph of $y = 2x - 1$

1 mark(L6/9)

**D** **Shape, Space and Measure**

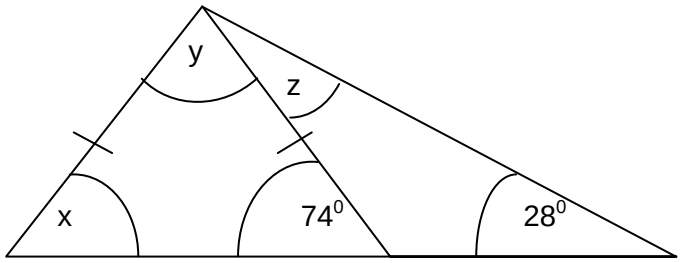
7. Look at the quadrilaterals and write the letter of each shape in the correct position




| | No line symmetry | Line symmetry order 1 | Line symmetry order 2 | Line symmetry order 4 |
|---|---|---|---|---|
| No rotational symmetry | | | | |
| Rotational symmetry order 2 | | | | |
| Rotational symmetry order 4 | | | | |

3marks (L6/12)

8. Find the missing angles. You must give a reason.



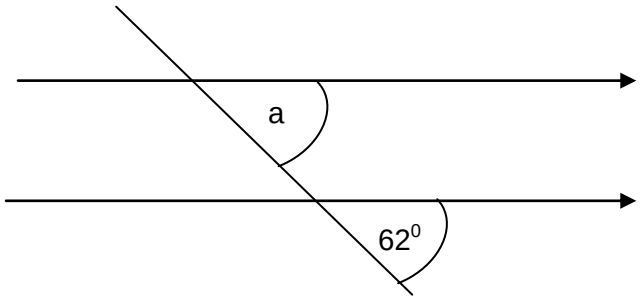

x= ..... Reason .....

y= ..... Reason .....

z= ..... Reason .....

3marks (L6/13)

9.

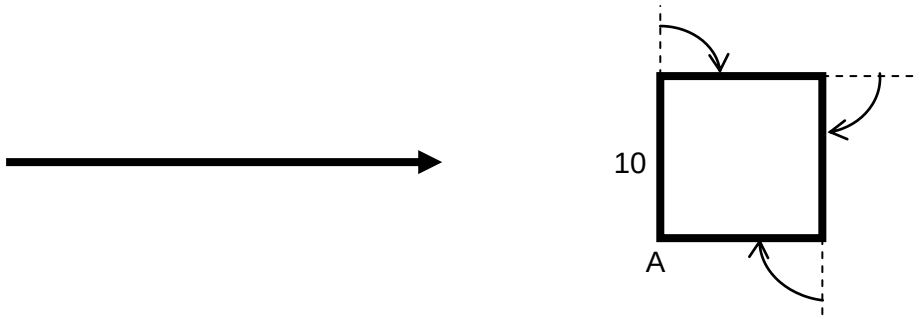



1marks(L6/14)

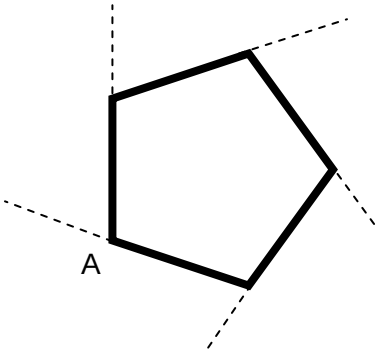
a= .....Reason .....

10. These instructions will create a square of side 10, starting at A:

| |
|---|
| Forward 10 |
| Turn right $90^0$ |
| Forward 10 |
| Turn right $90^0$ |
| Forward 10 |
| Turn right $90^0$ |
| Forward 10 |




Devise similar instructions to create an regular pentagon of side 10, starting at A




1mark (L6/15)

11. The diagram shows a sketch of a solid object.
The solid object is made from five centimetre cubes.

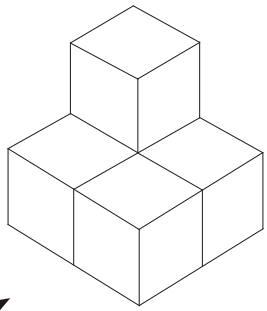
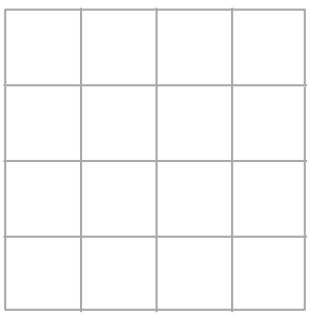


Diagram **NOT** accurately drawn

(a) On the grid of centimetre squares, draw the elevation of the solid object in the direction marked with an arrow.

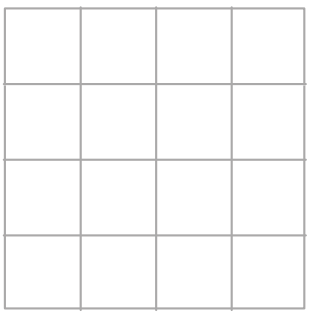
**Front Elevation**



1 mark (L6/16)

(b) On the grid of centimetre squares, draw the plan of the solid object

**Plan**



1 mark (L6/16)

## E **Data Handling**

12.

| | | | | | |
|---|---|---|---|---|---|
| 6 | 21 | 18 | 4 | 23 | 6 |
| 4 | 11 | 30 | 23 | 14 | 28 |
| 12 | 18 | 25 | 16 | 14 | 26 |
| 1 | 23 | 11 | 24 | 3 | 22 |
| 2 | 9 | 2 | 19 | 17 | 25 |

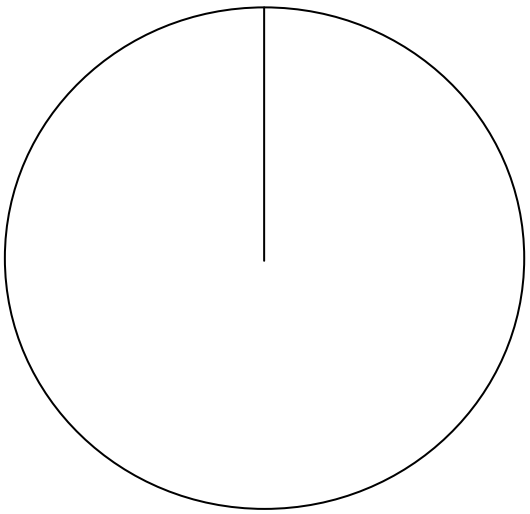
Choose suitable class intervals to draw up a frequency table for the above scores

| Class intervals | Tally | Frequency |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

2 marks (L6/22)

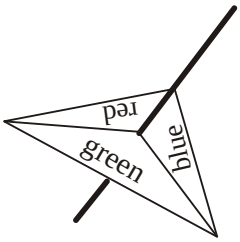
13. Construct a pie chart for the data
(Favourite takeaway)

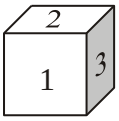
| Flavour | Number | Angle |
|---|---|---|
| Indian | 10 | |
| Fish & chips | 3 | |
| Chinese | 7 | |
| Pizza | 20 | |



2 marks (L6/23)

14. The diagram shows a 3-sided spinner and an ordinary dice.




The spinner has 1 green side, 1 blue side and 1 red side.

Alex spins the spinner once and rolls the dice once.

Write down all the possible outcomes.
One has already been done for you.

(g, 1) .....

.....

.....

1 mark (L6/24)

15. Tom plays a game of chess against the computer.

The computer is programmed so the chance it loses is 0.3 and the chance it draws is 0.5.

What is the probability that it wins?

.....1 mark (L6/25)

16. Zoe recorded the weight of each of 15 people.
She showed her results in a stem and leaf diagram.

| | |
|---|---|
| 4 | 6 8 |
| 5 | 1 2 8 |
| 6 | 0 3 4 6 8 |
| 7 | 4 7 8 9 |
| 8 | 7 |

Key:

4|6 means 46 kg

(a) Write down the number of people with a weight of more than 70 kg.

..... 1 mark (L6/26)

(b) Work out the range of the weights.

..... kg

1 mark (L6/26)