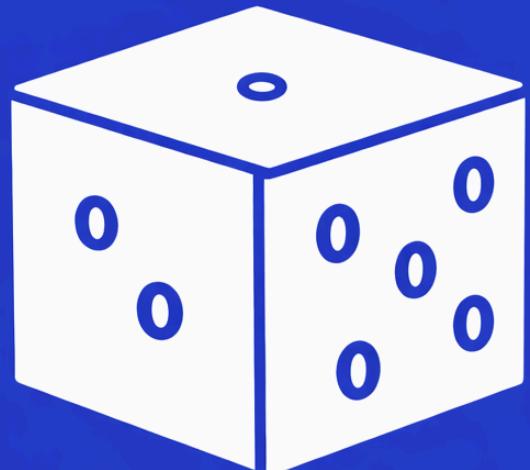
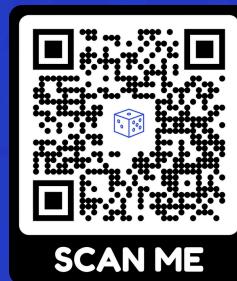


GCSE Foundation Worked Solutions Paper 1a

LUCKY MATHS



More papers



Solutions



Instructions

Use black ink or ball-point pen.

Draw diagrams in pencil.

Write your answers in the spaces provided and show all working.

The total mark for this paper is 40

Materials

Black pen

Pencil

Ruler

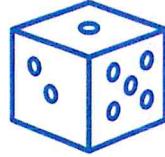
Disclaimer:

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**Answer ALL questions.
Write your answers in the spaces provided.**

You must write down all the stages in your working.

1 Simplify $a + a + a$

3a

(Total for Question 1 is 1 mark)

2 Write 0.6 as a percentage

60

(Total for Question 2 is 1 mark)

3 Change 300cm to metres

3

(Total for Question 3 is 1 mark)

4 Write down a factor of 10

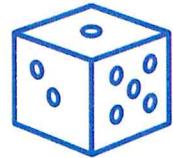
1, 2, 5 or 10

(Total for Question 4 is 1 mark)

5 Angle T is 115° . What type of angle is angle T?

Obtuse

(Total for Question 5 is 1 mark)



6 Antonio buys the following items:

2 sandwiches costing £2.85 each.

A drink costing £1.40

A packet of crisps costing 75p

Antonio pays with a £10 note.

Work out how much change Antonio should receive.

You must show your working.

$$\text{£}2.85 \times 2 = \text{£}5.70$$

$$\text{£}5.70 + \text{£}1.40 = \text{£}7.10$$

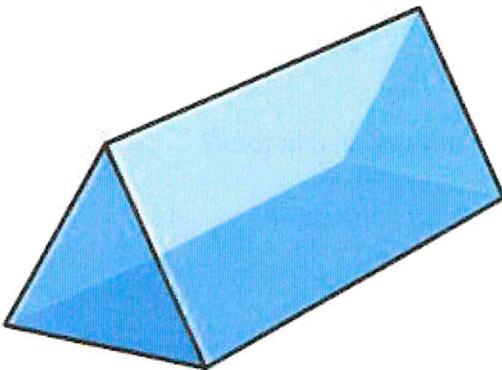
$$\text{£}7.10 + 0.75 = \text{£}7.85$$

$$\begin{array}{r} \text{£}10.00 \\ - \text{£}7.85 \\ \hline \text{£}2.15 \end{array}$$

$$\text{£}2.15$$

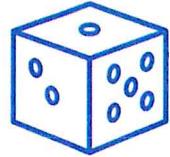
(Total for Question 6 is 3 marks)

7 (a) How many vertices does the following shape have?



6

(1)



(b) Draw a Hexagon in the space below



(1)

(Total for Question 7 is 2 marks)

8 The table below show the number of books and magazines read over a year by four students

Student	Books	Magazines
Aisha	42	18
Ben	67	25
Chloe	51	12
Dylan	29	20

(a) How many books and magazines did Aisha read in total?

$$\begin{array}{r} 42 \\ 18 \\ \hline 60 \end{array}$$

60

(1)

(b) How many more books were read over the year than magazines?

$$\text{Books} - 42 + 67 + 51 + 29 = 189$$

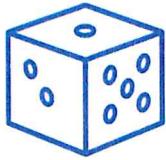
$$\text{Magazines} - 18 + 25 + 12 + 20 = 75$$

$$\text{Difference} = 189 - 75 = 114$$

114

(3)

(Total for Question 8 is 4 marks)



9 (a) Expand $2(3b+5)$

$$6b + 10$$

(1)

(b) Factorise $12y+20$

$$4(3y+5)$$

(1)

(c) Solve $2c+5=19$

$$\div 2 \left(\begin{matrix} 2c = 14 \\ c = 7 \end{matrix} \right) \div 2$$

7

(2)

(Total for Question 9 is 4 marks)

10 (a) Write 14738 to the nearest 1000

15,000

(1)

(b) Work out an estimate for the value of 3.85×97.5

$$3.85 = 4$$

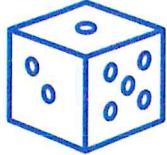
$$97.5 = 100$$

$$4 \times 100 = 400$$

400

(2)

(Total for Question 10 is 3 marks)



11 (a) Work out $\frac{3}{4} - \frac{1}{6}$

$$\frac{9}{12} - \frac{2}{12} = \frac{7}{12}$$

$$\frac{7}{12}$$

(2)

(b) Work out $\frac{3}{5}$ of 80.

$$80 \div 5 = 16$$

$$16 \times 3 = 48$$

$$48$$

(2)

(Total for Question 11 is 4 marks)

12 Here is part of a train timetable

City	A	B	C	D	E
London	—	10:05	12:20	14:10	16:35
Birmingham	09:12	11:22	13:05	15:18	17:30
Manchester	10:48	12:55	14:35	16:50	18:25
Leeds	11:27	13:40	15:10	17:03	19:18
Newcastle	12:15	14:05	16:20	18:07	20:30

(a) How long does train A take to get from Birmingham to Manchester

$$09:12 - 10:12 = 1 \text{ hour}$$

$$10:12 - 10:48 = 36 \text{ mins} +$$

1 hr 36 mins

1hr 36 mins

(2)

(b) Which train takes the least time to get from London to Newcastle?

You must show how you got your answer?

Train A - B = 09:12 - 10:12 = 1 hour

09:12 - 10:12 = 1 hour
 $10:12 - 10:48 = 36 \text{ mins}$] 1 hr 36 mins

train E

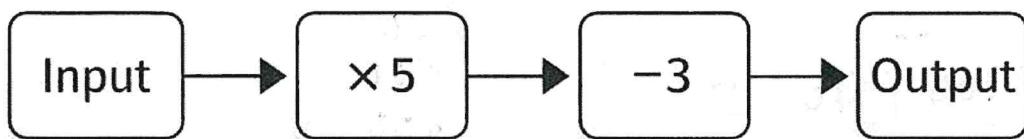
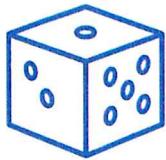
(3)

B - 10:15 - 14:05 (4h)
 C - 12:20 - 16:20 (4h)
 D - 14:10 - 18:07 (3h 57 mins)

E - 16:35 - 20:30
 (3h 55m)

(Total for Question 12 is 5 marks)

13 Below is a number machine



(a) Find the output when the input is 9.

$$\begin{aligned} 9 \times 5 &= 45 \\ 45 - 3 &= 42 \end{aligned}$$

.....
42

(2)

(b) Find the input when the output is -8.

$$\begin{aligned} -8 + 3 &= -5 \\ -5 \div 5 &= -1 \end{aligned}$$

.....
-1

(2)

(Total for Question 13 is 4 marks)

14 Elena is using a map. The map has a scale of 1 : 15000.

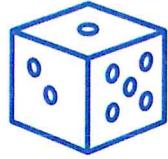
On the map a road has a length of 16cm.

Work out the length, in kilometres, of the real road.

$$\begin{aligned} 16 \times 15,000 &= 240,000 \\ 240,000 \div 100,000 &= 2.4 \end{aligned}$$

.....
2.4 km

(Total for Question 14 is 3 marks)



15 Work out 26×145

	100	40	5
20	2000	800	100
6	600	240	30

$$\begin{array}{r} 2000 \\ 800 \\ 600 \\ 240 \\ 100 \\ 30 \\ \hline 3770 \end{array}$$

37.7

(Total for Question 15 is 3 marks)

TOTAL FOR PAPER IS 40 MARKS