

Name: \_\_\_\_\_

GCSE Foundation  
Set C  
Non - Calculator Paper



Corbettmaths

**Equipment**

1. A blue or black ink ball-point pen.
2. A pencil.
3. An eraser.
4. A ruler.
5. A pair of compasses.
6. A protractor.

**Guidance**

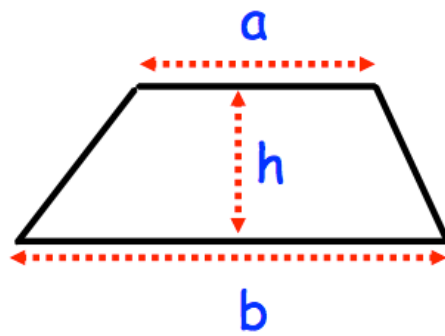
1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

**Information**

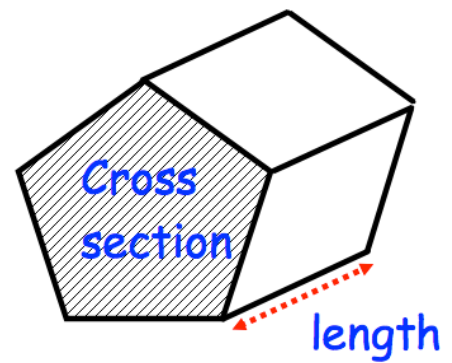
1. The maximum mark for this paper is 100.
2. The marks for questions are shown in brackets
3. You may ask for more lined, graph or tracing paper.

Question	Mark	Available
1		4
2		3
3		4
4		3
5		2
6		2
7		2
8		2
9		3
10		2
11		3
12		7
13		5
14		3
15		6
16		2
17		4
18		3
19		3
20		4
21		2
22		3
23		4
24		6
25		3
26		2
27		4
28		3
29		6
<b>Total</b>		<b>100</b>

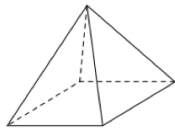
Area of a Trapezium =  $\frac{1}{2}(a + b)h$



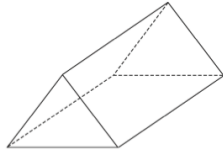
Volume of a prism = area of cross section x length



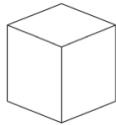
1. Below is a list of solid shapes and their names.



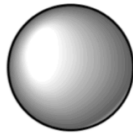
Sphere



Triangular Prism



Square-based Pyramid



Cube

Match each shape to the correct name.

(4)

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2. In each list, put the numbers in order starting with the smallest.

(a) 172    217    72    198    273

..... (1)

(b) 3    -8    5    -4    1

..... (1)

(c) 7.25    7.5    7.15    7.55    7.034

..... (1)

3. Sophie asks 20 of her friends to choose their favourite sport.

Their replies are

Rugby      Football      Rugby      Hockey      Cricket  
Football      Football      Rugby      Hockey      Football  
Rugby      Cricket      Hockey      Football      Football  
Football      Rugby      Football      Football      Rugby

(a) Complete the tally and the frequency columns in the table below.

Sport	Tally	Frequency
Rugby		
Football		
Hockey		
Cricket		

(2)

(b) Draw a pictogram to show these results.

Key: ○ represents 2 people

Rugby	
Football	
Hockey	
Cricket	

(2)

4. Shown is a menu from a cafe.

Menu

Tea	£1.35
Coffee	£1.80
Scone	£1.30
Biscuit	70p

Henry buys a tea, two scones and a biscuit.

Work out the total cost.

£.....  
(3)

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5. Match each triangle to the correct name.



Right-angled triangle



Equilateral triangle



Scalene triangle



Isosceles triangle

(2)

6. Here are four digits.

9    4    7    5

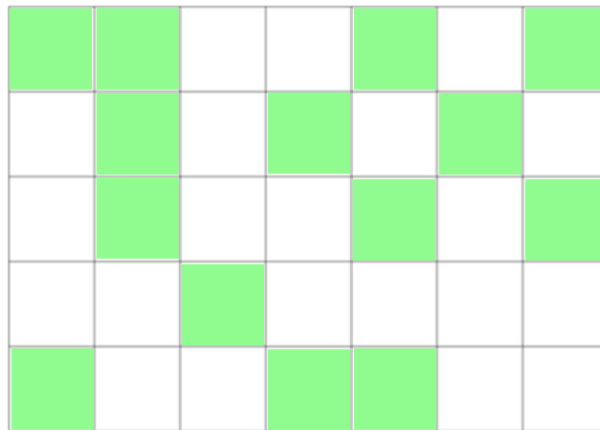
(a) Use two of these digits to make the largest possible two-digit number.

.....  
**(1)**

(b) Use all four of these digits to make the four-digit number closest to 5000.

.....  
**(1)**

7.



What fraction of this shape is shaded?  
Give your answer in its simplest form.

.....  
**(2)**

8. Work out

(a)  $14 + 12 \div 2$

.....  
(1)

(b)  $6 \times 5 - 4 \times 2$

.....  
(1)

---

9. Complete the table.

Fraction	Decimal	Percentage
$\frac{1}{2}$	0.5	
	0.75	75%
$\frac{2}{5}$		40%

(3)

10. Alison has £1.30  
Scott has £2.80

How much should Scott give Alison so that they will have the same amount of money?

.....  
(2)

---

11. Here are the first four terms of a number sequence.

4    10    16    22

(a) Write down the next term of this sequence

.....  
(1)

The 100<sup>th</sup> term of this number sequence is 598.

(b) Write down the 101<sup>st</sup> term of this sequence.

.....  
(1)

The number 701 is **not** a term of this sequence.

(c) Explain why.

.....  
.....  
.....  
(1)



12. Miss Jones gives her class a test.  
The test is out of 40 marks.

Here are their scores.

31    29    20    35    32    38    32

- (a) Work out the mode.

.....  
**(1)**

- (b) Work out the median.

.....  
**(2)**

- (c) Work out the range.

.....  
**(2)**

The pass mark for the test is 75%.

- (d) How many students pass the test?

.....  
**(2)**

13. Helen plays darts.

Here are her scores.

55   23   48   29   41   47   36  
35   40   35   44   34   35

(a) Draw an ordered stem and leaf diagram to show her scores.

**(3)**

(b) Write down the mode.

.....  
**(1)**

(c) Work out the range.

.....  
**(1)**

14. 80 students visited the library over three days.  
The two-way table shows some information about these students.

	Monday	Tuesday	Wednesday	Total
Female			13	38
Male	14			
Total		33	26	80

- (a) Complete the two-way table.

(3)

One of these students is picked at random to win a prize.

- (b) Write down the probability that the student is a female.

.....  
(1)

- (c) Write down the probability that the student visited the library on Tuesday.

.....  
(1)

15. (a) Simplify  $c + c + c$

.....  
**(1)**

(b) Simplify  $c \times c \times c$

.....  
**(1)**

(c) Simplify  $3x + 2y + 4x - 5y$

.....  
**(2)**

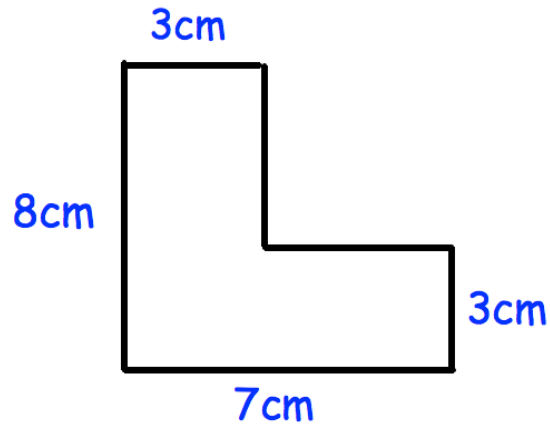
(d) Expand  $3(2w + 1)$

.....  
**(1)**

(e) Factorise  $g^2 - 3g$

.....  
**(1)**

16.



Calculate the perimeter of the shape above.

.....cm  
(2)

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17. Carl earns £1000 a month.

He spends  $\frac{1}{4}$  on rent and  $\frac{2}{5}$  on food and bills.

How much money has he left?

£.....  
(4)

18.

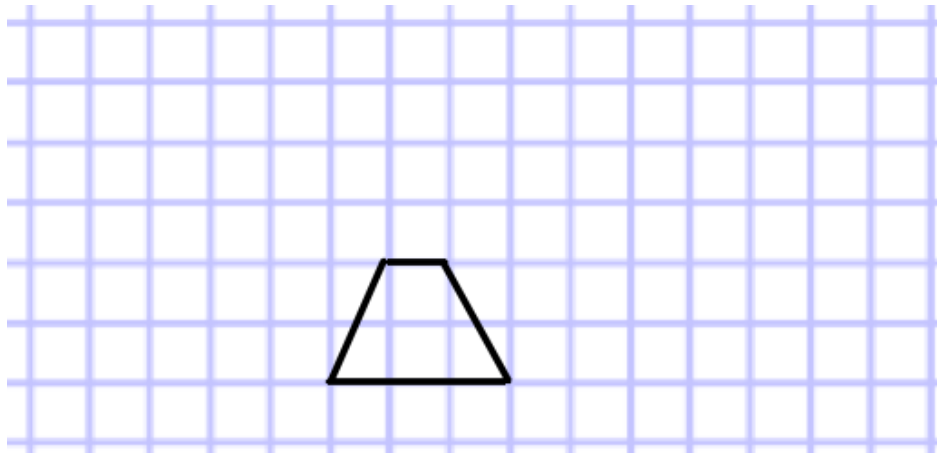


Mr Green buys a bicycle that costs £400.  
He pays a £50 deposit and pays the rest in 7 monthly payments.

Work out the cost of each monthly payment.

£.....  
(3)

19. A quadrilateral is drawn below.



(a) What is the name of the quadrilateral?

.....  
(1)

(b) On the grid above, show how the quadrilateral tessellates.  
You should draw at least 8 shapes.

(2)

20.

(a) Work out

$$\frac{4}{5} \times \frac{9}{10}$$

Give your answer as a fraction in its simplest form.

.....  
(2)


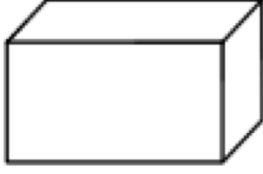
(b) Work out

$$\frac{2}{3} \div \frac{8}{11}$$

Give your answer as a fraction in its simplest form.

.....  
(2)

21. Vegetarian burgers are sold in two different sizes.

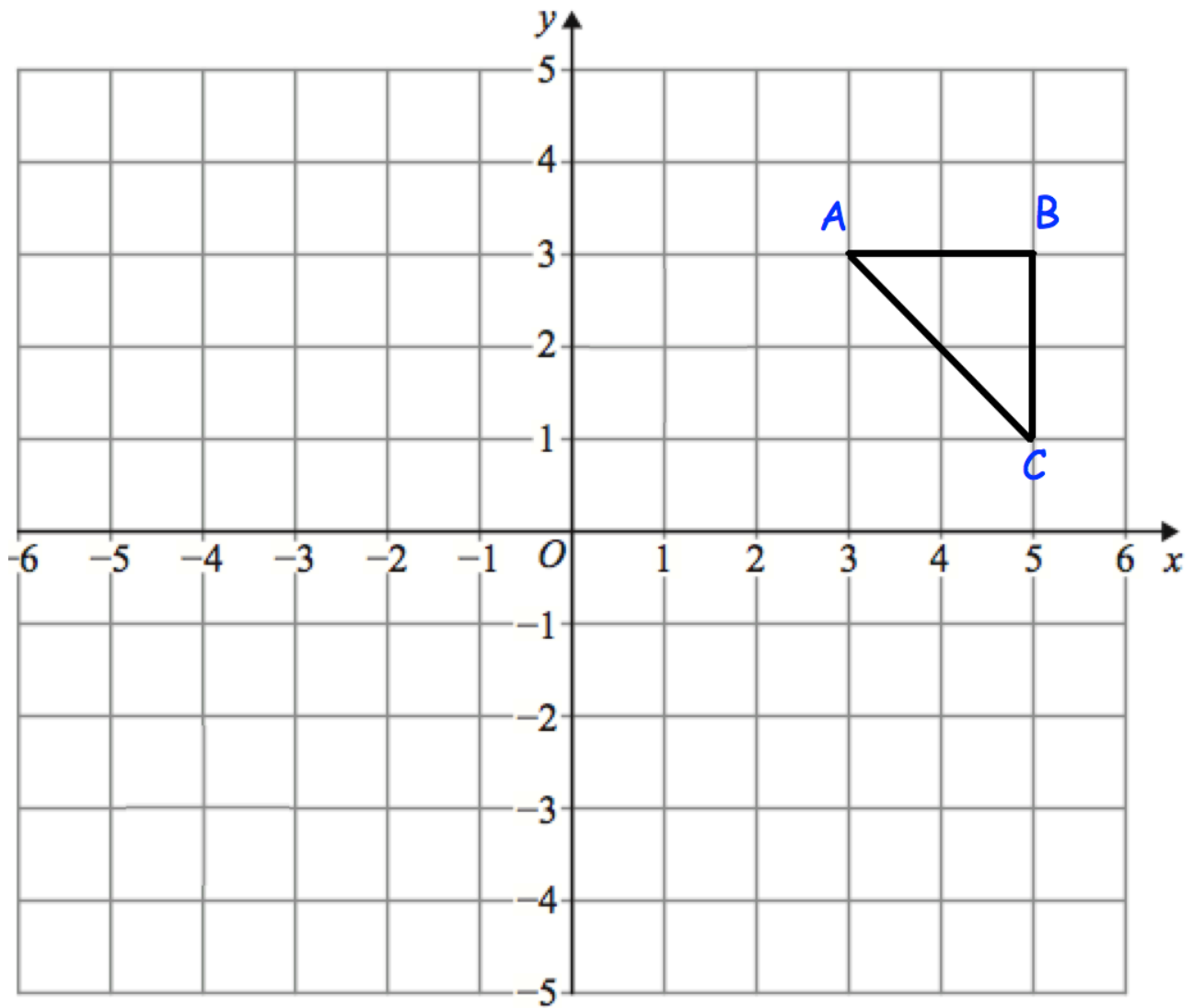
Regular Packet 8 burgers	Large Packet 24 burgers
	
£1.59	£4.79

Which size packet is the better value for money?  
You must show all your working.

(2)



22.



Rotate triangle ABC  $180^\circ$  about centre (1, 0)

(3)

23. Mrs Jackson wants to find out how much pocket money students are given.  
She uses this question.

How much pocket money do you receive, each month?

- £0 - £5
- £0 - £10
- £12 - £20
- Over £20

(a) Write down two criticisms of the response boxes.

1 .....

.....

2 .....

.....

(2)

(b) Design better response boxes below.

(2)

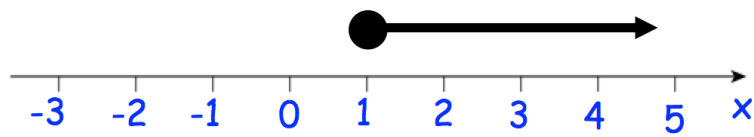
24. (a)  $n$  is an integer.

$$-2 < n \leq 3$$

List the possible values of  $n$ .

.....  
(2)

(b)



Write down the inequality shown in the diagram.

.....  
(2)

(c) Solve  $3y - 4 > 17$

.....  
(2)

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25.

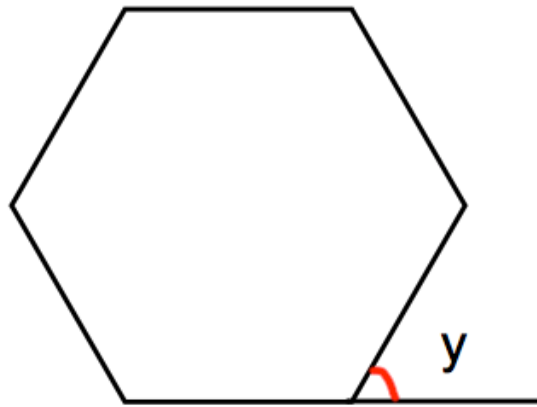
(a) Work out  $3^4$

.....  
(2)

(b) Write down the cube root of 125

.....  
(1)

26. Shown below is a regular hexagon, with an exterior angle labeled  $y$ .



Work out the size of each exterior angle.

$$y = \dots\dots\dots^{\circ}$$

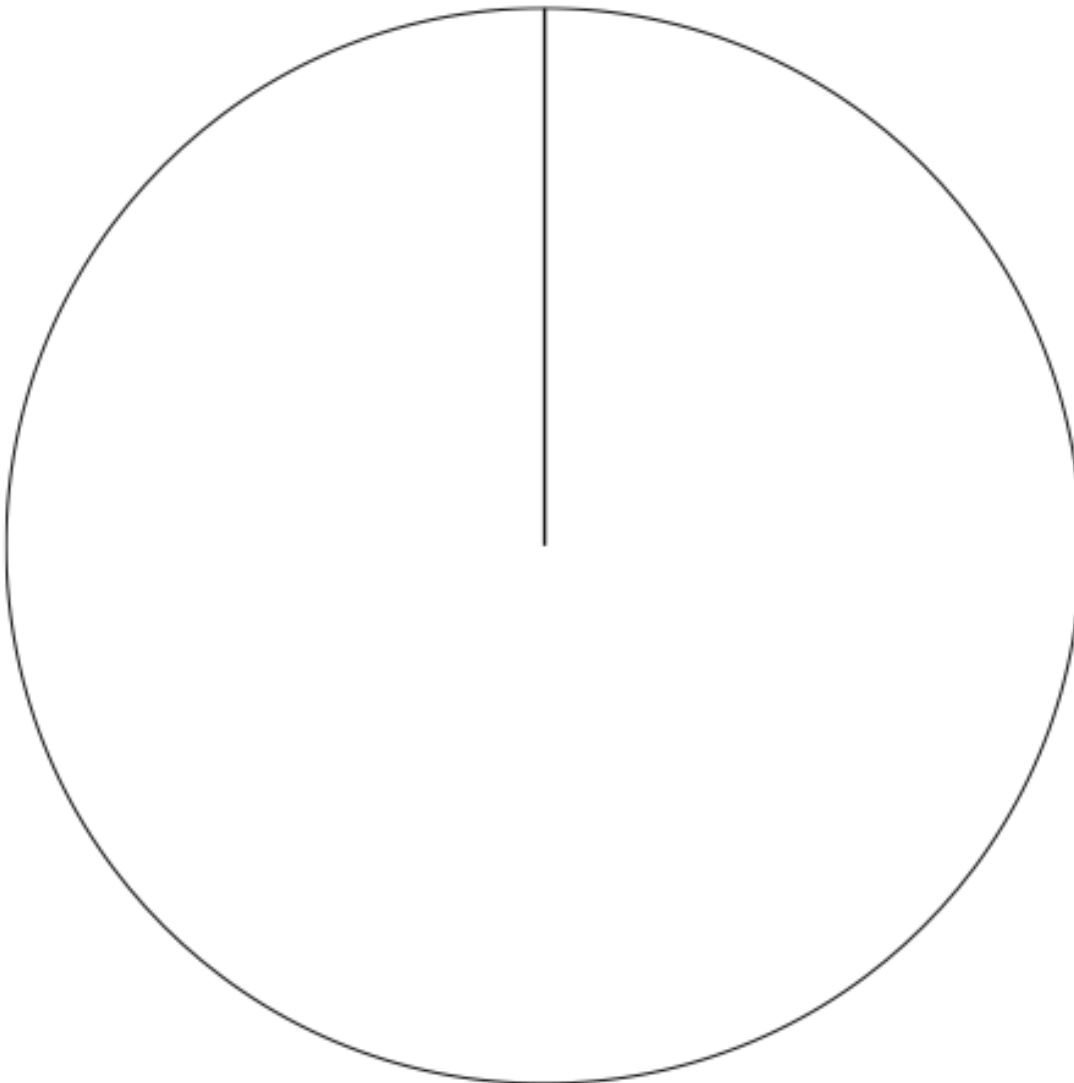
**(2)**

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27. The table gives information about the meals ordered on a Sunday.

Meal	Frequency
Chicken	14
Beef	9
Pork	57
Vegetarian	10

Draw an accurate pie chart to show this information.



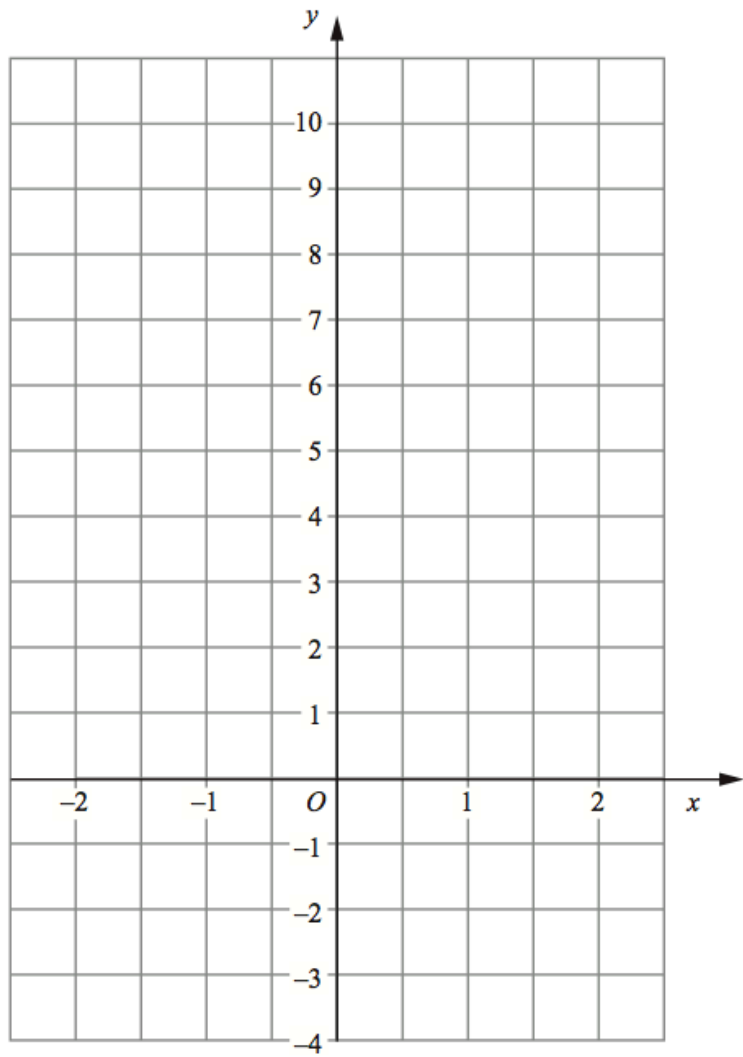
(4)

28. (a) Complete the table of values for  $y = 3x + 2$ .

$x$	-1	0	1	2
$y$				

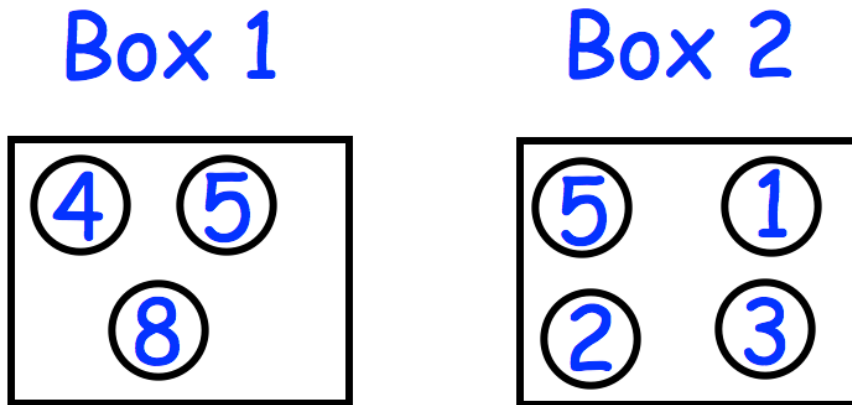
(1)

(b) On the grid, draw the graph of  $y = 3x + 2$ .



(2)

29. Rebecca has made up a game for a school fayre to raise money for charity. There are two boxes of counters. Each counter has a number on it.



The person playing the game will select one counter at random from box 1. Then they will select one counter at random from box 2.

- (a) Write down all the possible combinations of counters picked.

.....

.....

.....

(2)

The person playing the game wins when the numbers add up to 7.

During the school fayre, the game is played 120 times.

The game costs £1 to play.

Each prize costs £4

- (b) Work out how much money Rebecca raises for charity.

£.....

(4)