



THIRD SPACE  
LEARNING

# Mathematics

## Paper 3

### (Calculator)

## Foundation Tier

AQA GCSE

SET 3

# Mathematics Paper 3 (Calculator) Foundation Tier Edexcel

## GCSE SET 3

Name

Total marks

Paper length: 1hr 30mins



Question	Mark
1	
2	
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31	

### Instructions

- Use black ink or ball-point pen.
- Fill in the boxes at the top of this page with your name, centre number and candidate number.
- Answer all questions.
- Answer the questions in the spaces provided – there may be more space than you need.
- You must show all your working.
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- Calculators may be used.

### Information

- The total mark for this paper is 80
- The marks for each question are shown in brackets – use this as a guide as to how much time to spend on each question.

### Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

**You must have:** Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser. Tracing paper may be used.

This practice paper is based on the topics from the **advanced information for the November 2024 exam series**.

*Please note, this practice paper is an example to help revision, these topics can be tested in other ways and other topics may be included in the actual papers*

1 What is 35% as a fully simplified fraction?

**[1 mark]**

Answer \_\_\_\_\_

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2 Work out  $\frac{1}{4}$  of 24.

**[1 mark]**

Answer \_\_\_\_\_

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3 List all the factors of 18

**[1 mark]**

Answer \_\_\_\_\_

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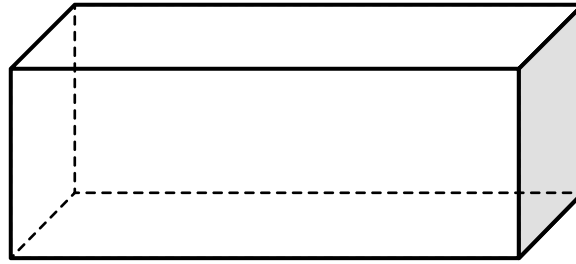
4 What time is 3 hours 20 minutes after 8.15am?

**[1 mark]**

Answer \_\_\_\_\_

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**5** Here is a 3D shape.



(a) Write down the name of the 3D shape.

**[1 mark]**

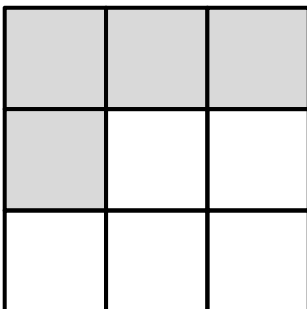
Answer \_\_\_\_\_

(b) Write down the number of vertices of this 3D shape.

**[1 mark]**

Answer \_\_\_\_\_

**6** Here is a grid of squares.



Write down the fraction of the squares which are shaded.

**[1 mark]**

Answer \_\_\_\_\_

7    Chrisitne is choosing a gift for a friend from these gifts.

**[2 marks]**

Category A	Category B
Biscuits (B)  Chocolates (C)	Mug (M)  Plant (P)  Slippers (S)

Christine chooses one gift from category A and one gift from category B.

Complete this list to show all of the possible gift combinations.

Category A	Category B
B	M

- 8 Gary buys a screwdriver for £35 and 3 boxes of screws for £4.99 each.

Gary pays with 3 £20 notes.

How much change does Gary get?

[3 marks]

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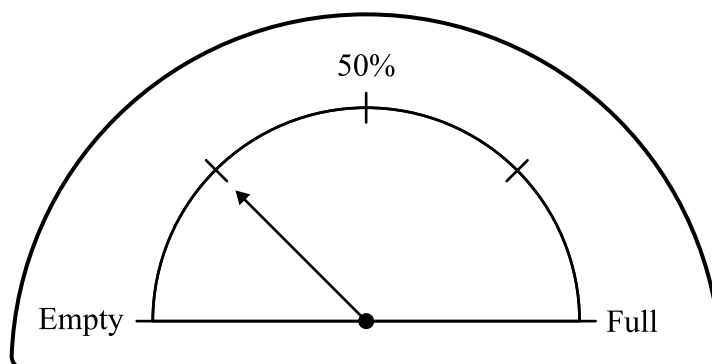
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Answer \_\_\_\_\_

- 9 Here is the fuel gauge for a car.

[3 marks]



The fuel tank holds 50 *litres* when it is full.

Work out how many *litres* of fuel are left in the tank.

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Answer \_\_\_\_\_

10 (a) Work out the value of  $\frac{500}{2.5 \times 8}$

[1 mark]

Answer \_\_\_\_\_

(b) Write down the reciprocal of 3.

[1 mark]

Answer \_\_\_\_\_

- 
- 11 Pens are sold in small packs of 12 pens, medium packs of 18 pens or large packs of 25 pens.  
Freddie buys 6 small packs of pens, 5 medium packs of pens and some large packs of pens.  
In total Freddie buys 312 pens.  
Work out how many large packs of pens Freddie buys.

[3 marks]

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Answer \_\_\_\_\_

12 (a) Simplify  $\frac{4p + 10}{2}$

[1 mark]

Answer \_\_\_\_\_

(b)  $P = a^2 - b$

Write down a pair of values for  $a$  and  $b$  which make  $P$  negative.

[2 marks]

$a =$  \_\_\_\_\_

$b =$  \_\_\_\_\_

- 13 Jovy spends 2 weeks working on her project.  
Olivia spends 18 days working on her project.

Write, in its simplest form, the ratio

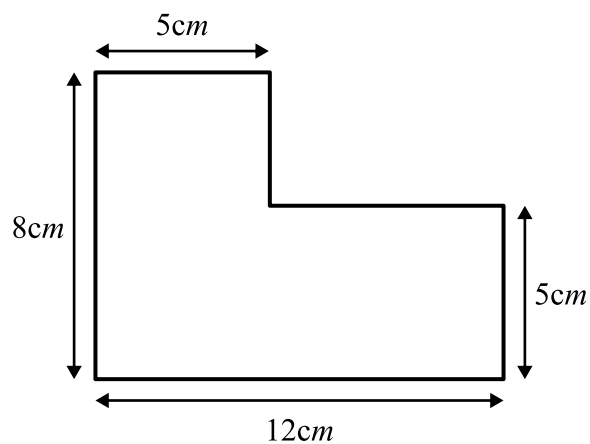
time spent by Jovy : time spent by Olivia

[2 marks]

Answer \_\_\_\_\_



14



(a) Work out the perimeter of this shape.

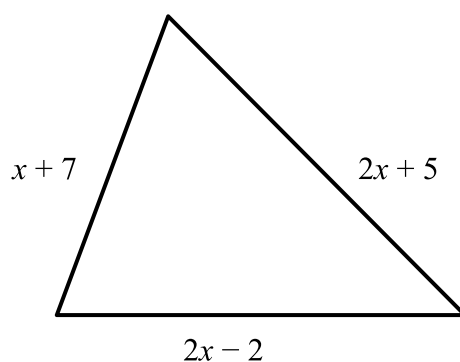
[2 marks]

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Answer \_\_\_\_\_



(b) Write an expression, in terms of  $x$ , for the perimeter of this triangle.

[2 marks]

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Answer \_\_\_\_\_

**15** (a) Kai and Damian share some money in the ratio 2:7.

What fraction of the money does Damian get?

**[1 mark]**

Answer \_\_\_\_\_

(b) If Damian gets £30 more than Kai, what is the total amount of money they shared?

**[3 marks]**

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Answer \_\_\_\_\_

**16** Make  $P$  the subject of the formula  $F = \frac{PQ}{12}$

**[2 marks]**

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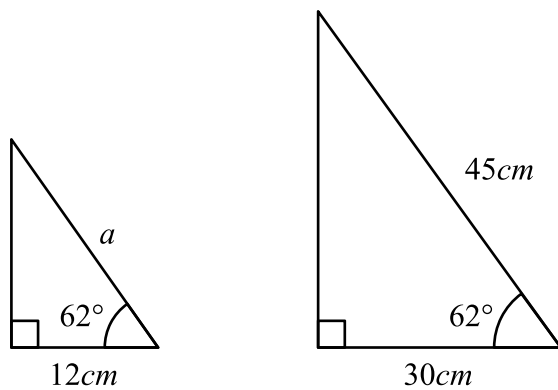
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Answer \_\_\_\_\_

17 These two triangles are similar.



Not drawn  
accurately

Work out the value of  $a$ .

[2 marks]

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Answer \_\_\_\_\_  $cm$

18 Convert  $1m^2$  into  $cm^2$ .

[1 mark]

Answer \_\_\_\_\_

19 (a) Write 4739 correct to 2 significant figures.

[1 mark]

Answer \_\_\_\_\_

(b) Write 0.00581 to 1 significant figure.

[1 mark]

Answer \_\_\_\_\_

(c) The number,  $n$ , is rounded to the 1 decimal place.

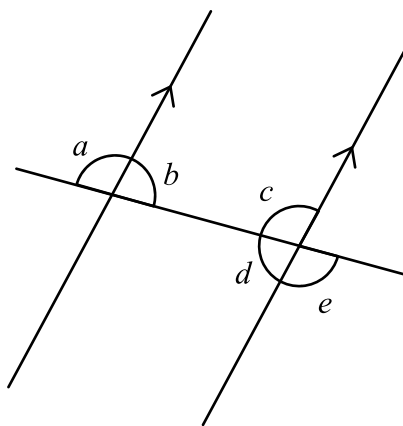
The result is 5.3

Complete the error interval for  $n$ .

[2 marks]

Answer \_\_\_\_\_  $\leq n <$  \_\_\_\_\_

20



Complete these sentences:

[2 marks]

Angles \_\_\_\_\_ and \_\_\_\_\_ are alternate angles.

Angles \_\_\_\_\_ and \_\_\_\_\_ are alternate angles.

21 The table shows information about the ages of 100 people registered at a doctor's surgery.

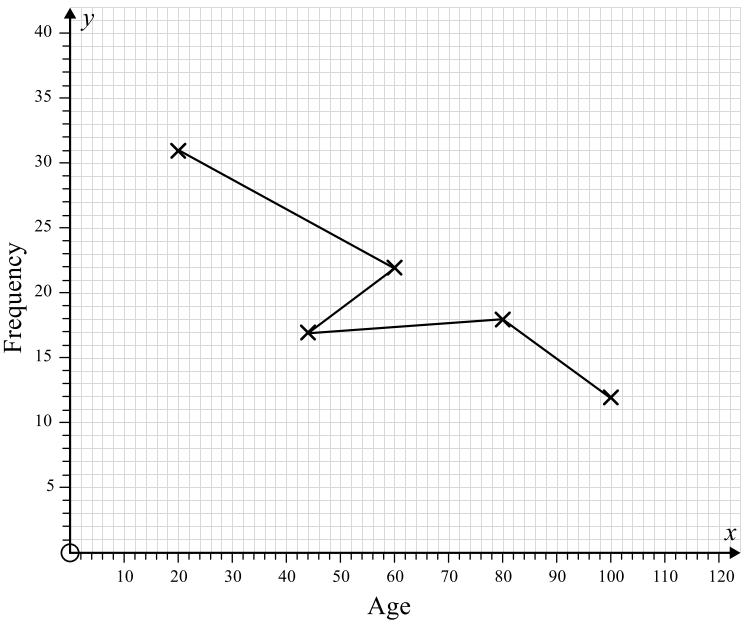
Age (years)	Frequency
$0 < a \leq 20$	31
$20 < a \leq 40$	17
$40 < a \leq 60$	22
$60 < a \leq 80$	18
$80 < a \leq 100$	12

(a) Find the class interval that contains the median.

[1 mark]

Answer \_\_\_\_\_

(b) Rosie draws a frequency polygon for the information in the table.



Write down two mistakes that Rosie has made with her frequency polygon.

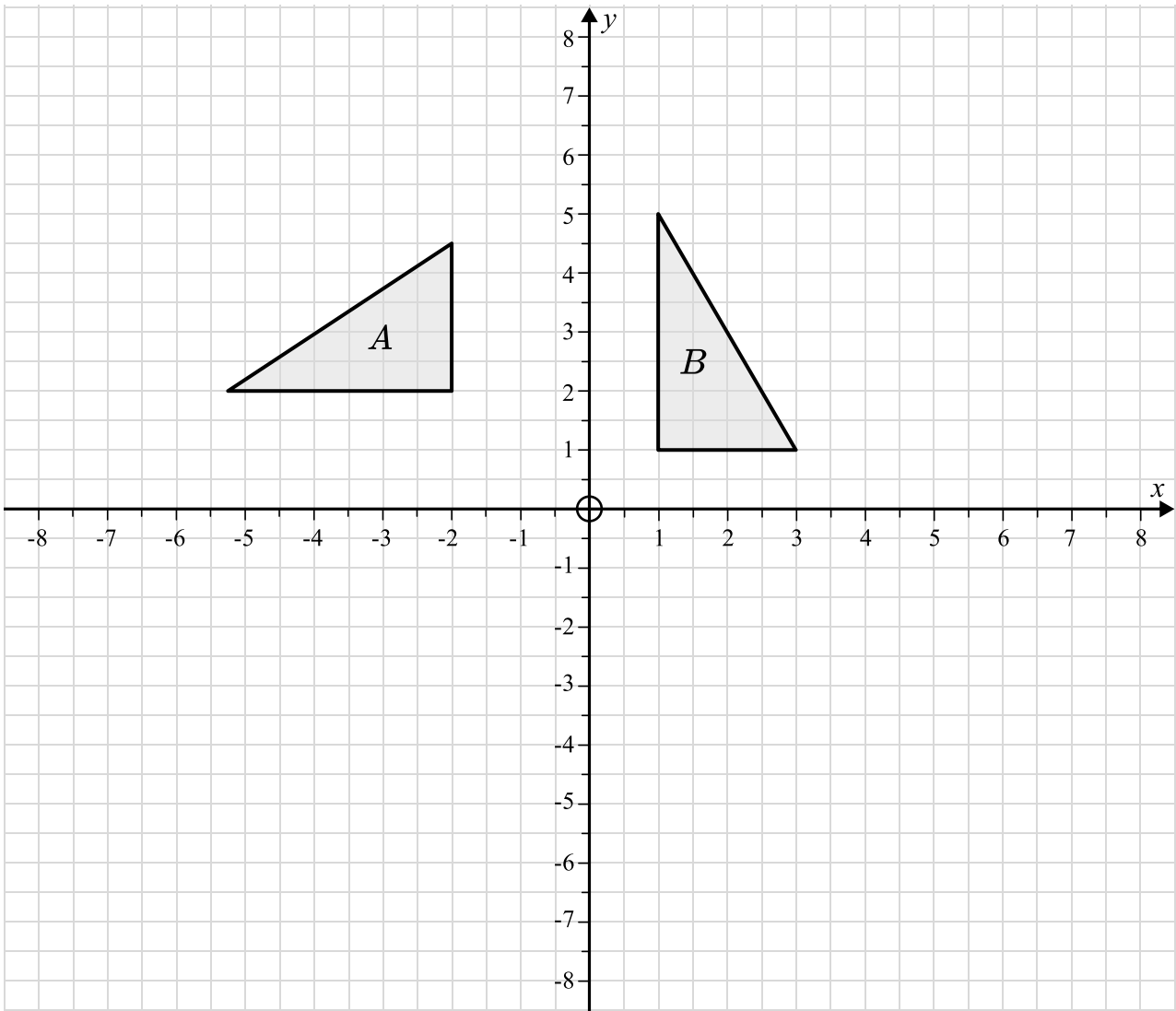
[2 marks]

1 : \_\_\_\_\_

2 : \_\_\_\_\_

22 Describe fully the single transformation that maps shape *A* to shape *B*.

[3 marks]



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23 The manager of a clothes shop records the size of the clothes sold one day.

8				
10	10	10		
12	12	12	12	12
14	14			
16	16	16		
18	18			

(a) Work out the mean size of the clothes sold that day.

[2 marks]

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Answer \_\_\_\_\_

(b) Emily says that the mean is not a very useful average.  
Explain what Emily is correct.

[1 mark]

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(c) Which average would be the most useful in this example? Explain why.

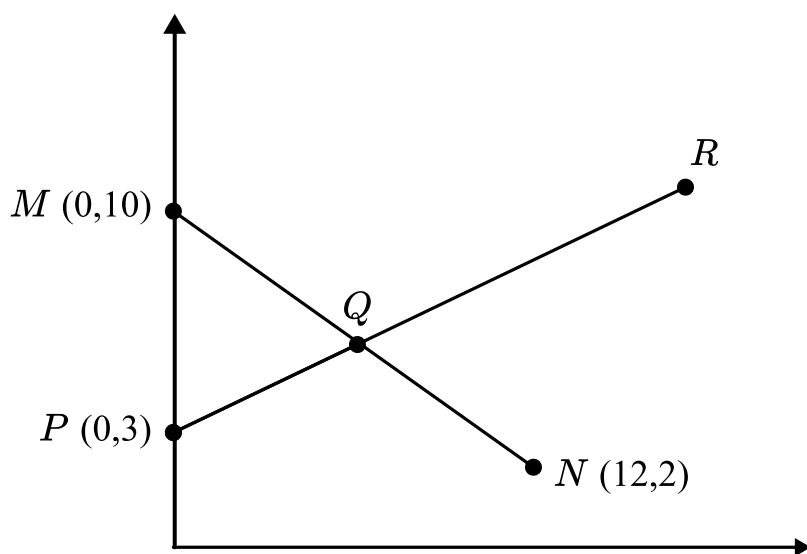
[2 marks]

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- 24 The point  $Q$  is the midpoint of the line  $MN$ .  
The point  $Q$  lies on the line  $PR$  such that  $PQ:QR = 1:2$ .



Find the coordinates of the point  $R$ .

[3 marks]

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Answer ( \_\_\_\_\_ , \_\_\_\_\_ )



$$m+2 \qquad 3m+3 \qquad 5m+4 \qquad 7m+5$$

(a) Work out the value of  $m$ .

**[2 marks]**

$$m =$$

(b) Work out the fifth term in the sequence.

**[1 mark]**

Answer

**26** Peter invests £2000 in a savings account for 3 years.

He is paid compound interest at a rate of 4% per annum.

How much money does Peter have in his account at the end of the 3 years?

**[3 marks]**

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Answer \_\_\_\_\_

**27** Find the highest common factor ( *HCF* ) of 48 and 64.

**[2 marks]**

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Answer \_\_\_\_\_

**28** The speed limit in a village is changed from 30 *mph* to 20 *mph*.

Before the speed limit was changed, it took Beth five minutes to drive through the village.

(a) What distance does Beth travel through the village?

**[2 marks]**

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Answer \_\_\_\_\_

(b) Mark says that the journey will now take Beth one minute longer.

Is Mark correct?

Show how you decide.

**[2 marks]**

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Answer \_\_\_\_\_

29 Solve the simultaneous equations

$$4a + 3b = 29$$

$$3a + 2b = 20.5$$

[4 marks]

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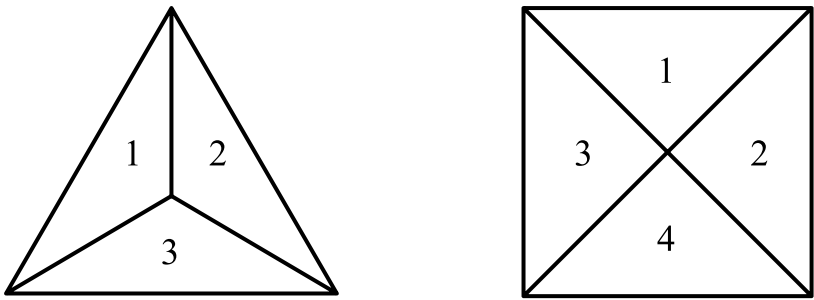
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$a =$  \_\_\_\_\_

$b =$  \_\_\_\_\_

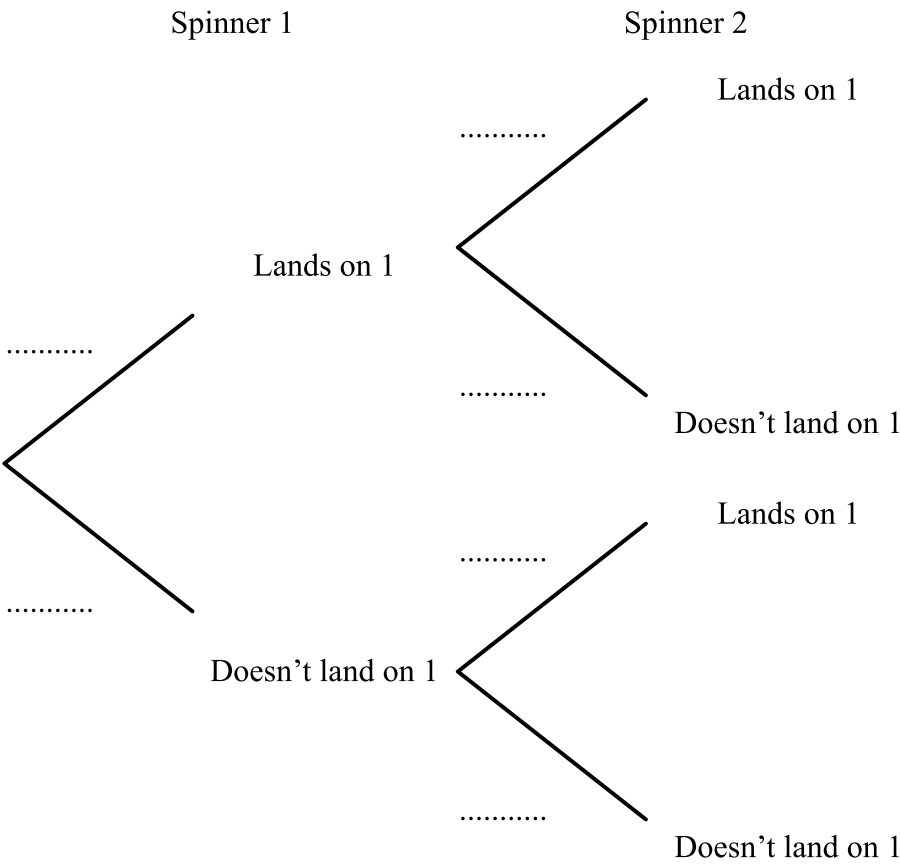
30 Josh has 2 fair spinners.



He spins both spinners.

(a) Complete the tree diagram.

[2 marks]



(b) Work out the probability that both spinners land on 1.

[2 marks]

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Answer \_\_\_\_\_

- 31** The value of Richard's car has decreased by 12%.  
The car now has a value of £8360.

Find the value of the car before the decrease.

**[2 marks]**

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Answer \_\_\_\_\_

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