

Answer ALL TWENTY EIGHT questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 (a) Write 0.3 as a percentage.

..... %
(1)

- (b) Write $\frac{29}{100}$ as a decimal.

.....
(1)

- (c) Write $\frac{17}{20}$ as a decimal.

.....
(1)

- (d) Write these numbers in order of size.
Start with the smallest number.

-7 8 -9 16 -3

.....
(1)

- (e) Write these numbers in order of size.
Start with the smallest number.

0.044 0.104 0.04 0.009 0.2

.....
(1)

There are 400 cars in a car park.

$\frac{3}{10}$ of the cars are grey.

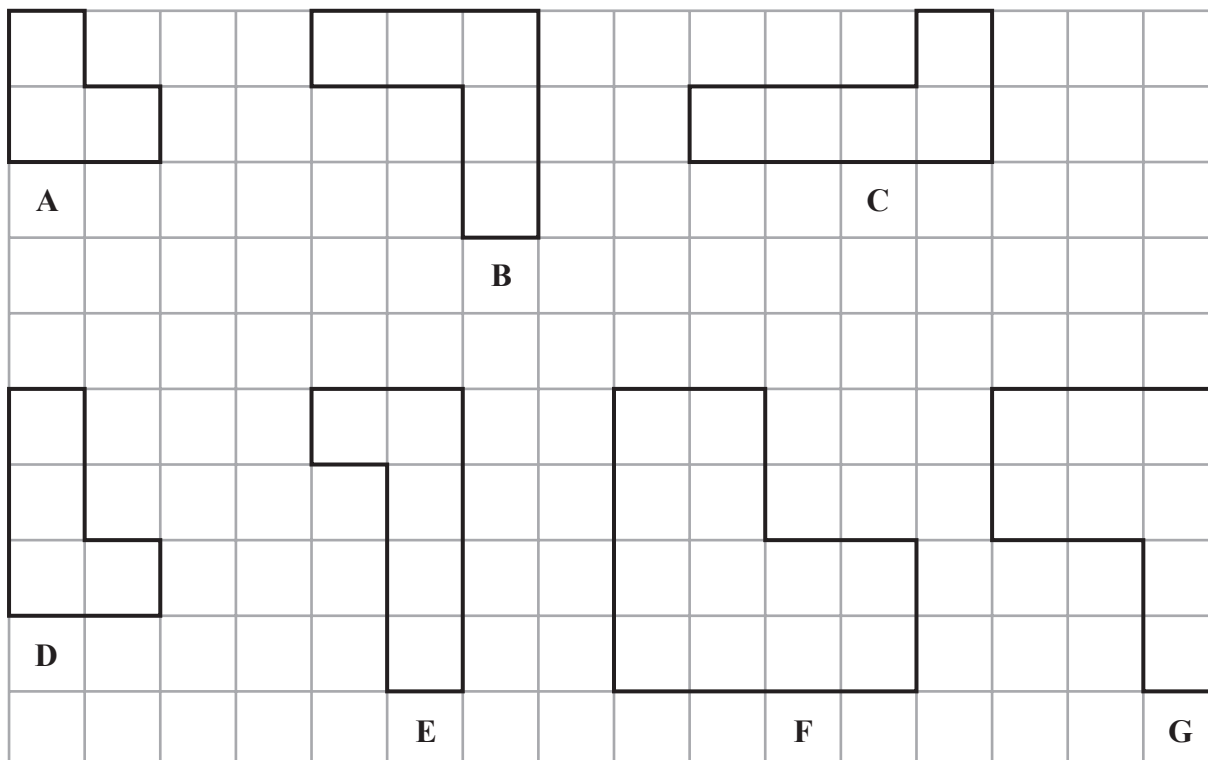
- (f) Work out how many of the cars in the car park are **not** grey.

.....
(2)

(Total for Question 1 is 7 marks)



2 Here are seven shapes on a centimetre grid.



(a) Write down the letters of the two shapes that are congruent.

..... and
(1)

Two of the seven shapes are similar but are not congruent.

(b) Write down the letters of these two shapes.

..... and
(1)

Shape **F** has exactly one line of symmetry.

(c) On shape **F** on the grid, draw this line of symmetry.

(1)

(d) Work out the perimeter of shape **B**.

..... cm
(1)

(e) Work out the area of shape **G**.

..... cm²
(1)

(Total for Question 2 is 5 marks)



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

7 13 19 25 31

(a) (i) Write down the next term of the sequence.

.....
(1)

(ii) Explain how you found your answer to part (a)(i)

.....
(1)

The 30th term of the sequence is 181

(b) Work out the 28th term of the sequence.

.....
(1)

Brian says that 96 is a number in the sequence.

Brian is wrong.

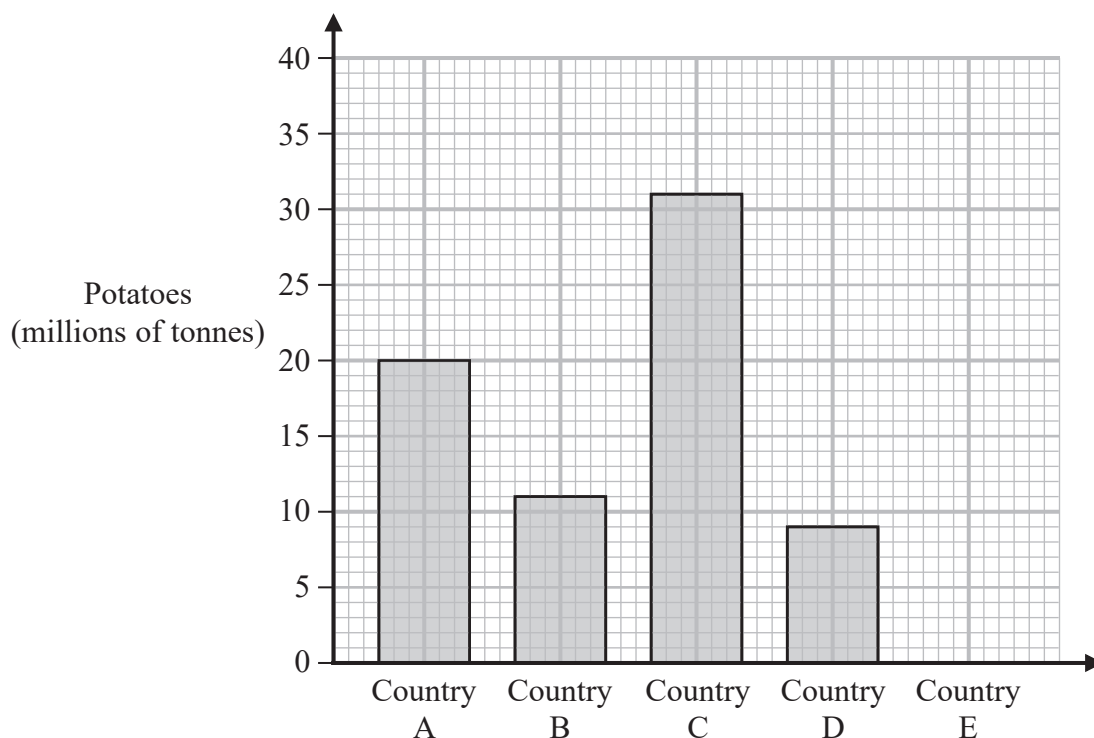
(c) Explain why.

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

(Total for Question 3 is 4 marks)



4 The bar chart shows information about the weight, in millions of tonnes, of the potatoes produced by each of four countries in 2016



In 2016, one of these four countries produced 11 million tonnes of potatoes.

(a) Which country?

..... (1)

In 2016, Country E produced 7 million tonnes of potatoes.

(b) Draw a bar on the bar chart to show this information.

(1)

In 2016, the weight of potatoes produced by Country C was greater than the weight of potatoes produced by Country A.

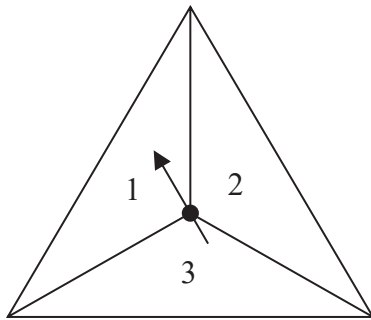
(c) How many million tonnes greater?

..... million tonnes (1)

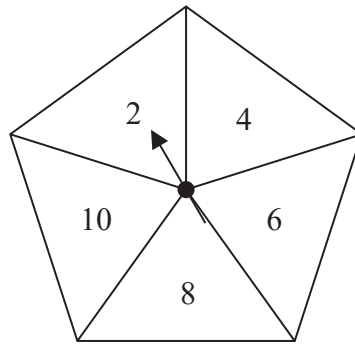
(Total for Question 4 is 3 marks)



- 5 Jian has two fair spinners.
 Spinner A is 3-sided and can land on 1, 2 or 3
 Spinner B is 5-sided and can land on 2, 4, 6, 8 or 10



Spinner A



Spinner B

Jian spins each spinner once.

He adds together the number that spinner A lands on and the number that spinner B lands on to get his total score.

- (a) Complete the table to show all possible total scores.
 Five of the total scores have been done for you.

Spinner A

		1	2	3
Spinner B	2	3		
	4			7
	6	7		
	8		10	
	10		12	

(2)

- (b) Find the probability that
- (i) Jian's total score is an odd number

.....
(1)

- (ii) Jian's total score is less than 9

.....
(1)

(Total for Question 5 is 4 marks)



6 Here are two special offers for buying dog food.

<p style="text-align: center;">Special offer A</p> <p>Normally \$1.40 a tin</p> <p>Special offer Buy 1 tin, get 1 tin half price</p>
--

<p style="text-align: center;">Special offer B</p> <p>Normally pack of 6 tins for \$7.20</p> <p>Special offer 20% off each pack of 6 tins</p>

Gaspar buys 24 tins of dog food using special offer **A**.

Anna buys 24 tins of dog food using special offer **B**.

Work out the difference between the amount that Gaspar pays and the amount that Anna pays.

\$.....

(Total for Question 6 is 4 marks)

7 A circle has radius 6.5 cm.

Calculate the circumference of the circle.

Give your answer correct to 3 significant figures.

..... cm

(Total for Question 7 is 2 marks)



8 Mairi has 200 flowers.

Of these flowers

37 are white

25 are yellow

42 are pink

The rest of the flowers are red.

Express the number of red flowers as a fraction of the total number of flowers.

Give your fraction in its simplest form.

.....
(Total for Question 8 is 3 marks)

9 3 cups each contain 200 millilitres of water.

4 jugs each contain x millilitres of water.

Emma pours all the water from the 3 cups and the 4 jugs into a container.

The total amount of water that Emma pours into the container from the 3 cups and 4 jugs is 3.5 litres.

Work out the value of x

$x =$

(Total for Question 9 is 4 marks)

