Answer ALL TWENTY SEVEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 (a) Write these numbers in order of size.
Start with the smallest number.

202 58 123 7 180

.....

(1)

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

0.155 1.5 0.15 0.015 1.15

.....

(1)

(c) Write in figures the number five thousand two hundred and three.

.....

(1)

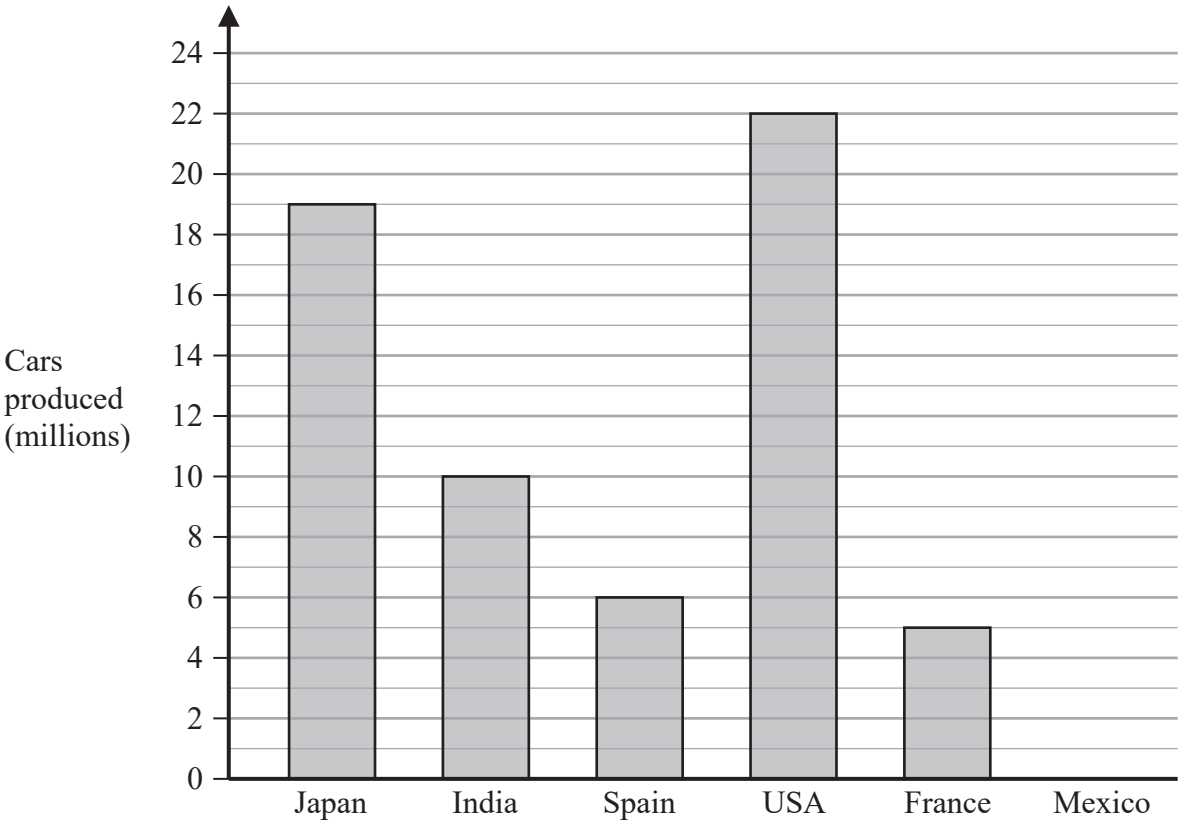
(d) Write down the value of the 6 in the number 2468

.....

(1)

(Total for Question 1 is 4 marks)

2 The bar chart gives information about the total number, in millions, of cars produced in 2017 and 2018 for each of five countries.



The total number of cars produced in 2017 and 2018 in Mexico was 8 million.

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

(1)

(b) Which of these six countries produced the greatest total number of cars?

.....

(1)

(c) Which country produced half as many cars as India?

.....

(1)

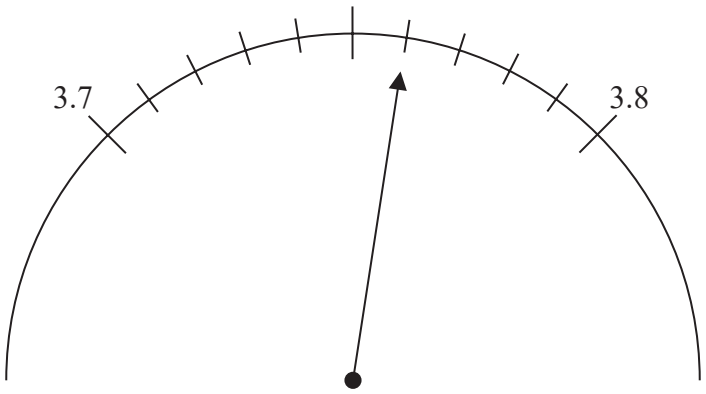
(d) Work out the difference between the total number of cars produced in Japan and the total number of cars produced in Spain.

..... million

(1)

(Total for Question 2 is 4 marks)

3

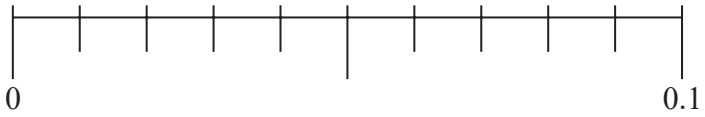


(a) Write down the number marked with the arrow on the scale above.

.....

(1)

(b) Mark with an arrow (↑) the number 0.04 on the scale below.



(1)

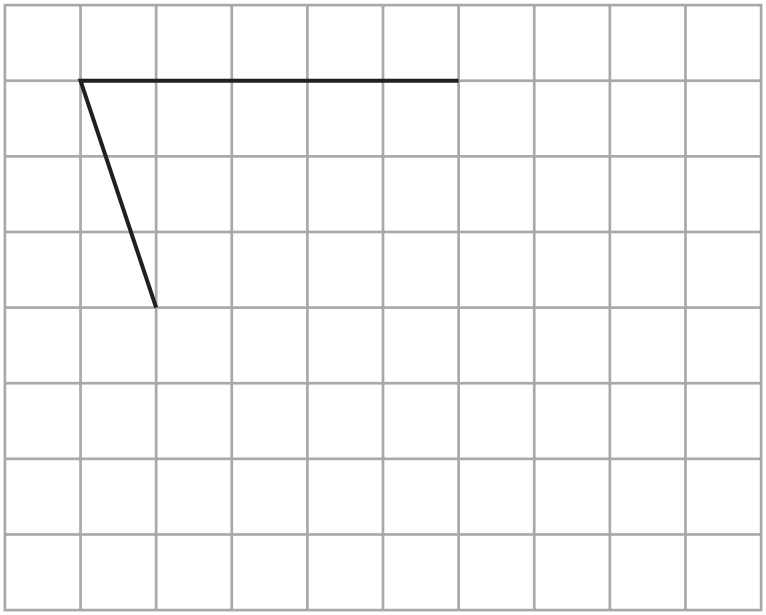
(c) Write the number 5.68 correct to one decimal place.

.....

(1)

(Total for Question 3 is 3 marks)

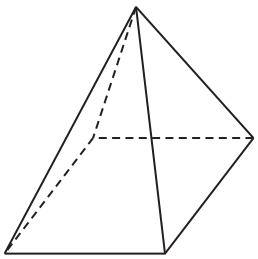
4 Here are two sides of a parallelogram.



(a) On the grid above, complete the parallelogram.

(1)

The diagram shows a 3-D shape.



(b) (i) What is the mathematical name of this 3-D shape?

.....

(1)

(ii) How many faces has this shape?

.....

(1)

(Total for Question 4 is 3 marks)

5 Brigid recorded the distance she ran on each of three days.

The table shows her results.

Day	Distance
Monday	5950 m
Tuesday	14.5 km
Wednesday	9000 m

Brigid set herself the target of running a **total** of at least 30 km on these three days.

Show that Brigid did not achieve her target.

(Total for Question 5 is 3 marks)

6 (a) Find the value of

(i) $\sqrt{31.36}$

.....

(1)

(ii) 14^3

.....

(1)

(b) Write a number on each dotted line to make the calculation correct.

(i) $10 - \ldots\ldots\ldots\ldots \times 2 = 4$

(1)

(ii) $(5 + \ldots\ldots\ldots\ldots) \times 3 = 36$

(1)

(Total for Question 6 is 4 marks)

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

1 7 13 19 25

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

.....

(1)

(ii) Explain how you worked out your answer.

.....

.....

(1)

(b) Explain why 188 cannot be a number in the sequence.

.....

.....

.....

(1)

(Total for Question 7 is 3 marks)

8 Jordan buys 256 notebooks.

He buys the notebooks in packs of 8 notebooks.
Each pack of 8 notebooks costs £2.48

Work out how much the 256 notebooks cost Jordan.

£.....

(Total for Question 8 is 3 marks)

9 (a) Simplify $a \times a \times a \times a \times a$

.....

(1)

(b) Simplify $8b \times 3c$

.....

(1)

(c) Expand $3(x + 4)$

.....

(1)

$Q = 5v^2 - w$

(d) Work out the value of Q when $v = \frac{1}{2}$ and $w = \frac{1}{4}$

$Q =$ .....

(2)

(Total for Question 9 is 5 marks)

DO NOT WRITE IN THIS AREA

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DO NOT WRITE IN THIS AREA

10 It takes a machine 8 seconds to produce a bolt.

Each day, the machine starts producing bolts at 09 30
The machine produces bolts continuously every 8 seconds until it stops at 16 10 on the same day.

Work out how many bolts the machine produces each day.

.....

(Total for Question 10 is 4 marks)

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