

Answer ALL TWENTY FOUR questions.

Write your answers in the spaces provided.

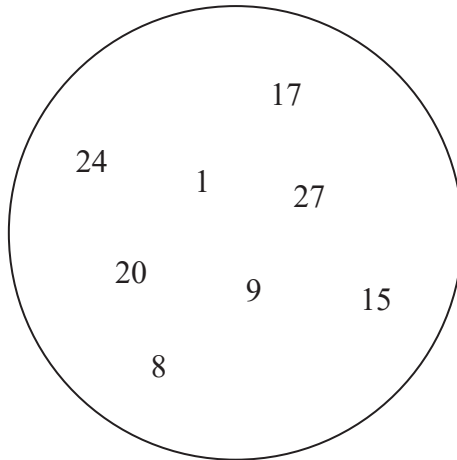
You must write down all the stages in your working.

1

3	2	6	8
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- (a) Write down the largest possible four digit number using all the digits that are in the box.

.....
(1)



From the numbers in the circle, write down

- (b) a multiple of 6

.....
(1)

- (c) a prime number

.....
(1)

(Total for Question 1 is 3 marks)



- 2 At 6 pm, the temperature in Victoria's garden was 5°C .
By midnight, the temperature in Victoria's garden had fallen by 9°C .

(a) Work out the temperature in Victoria's garden at midnight.

..... $^{\circ}\text{C}$
(2)

Here is a list of 7 temperatures.

4°C -6°C 4°C 0°C -1°C -7°C -5°C

(b) For the 7 temperatures in the list,

(i) write down the mode,

..... $^{\circ}\text{C}$
(1)

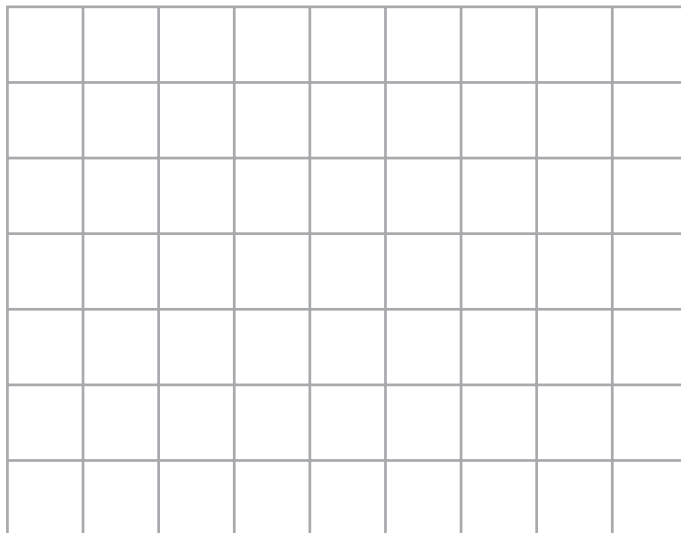
(ii) find the median.

..... $^{\circ}\text{C}$
(2)

(Total for Question 2 is 5 marks)



- 3 (a) On the grid below, draw a kite.

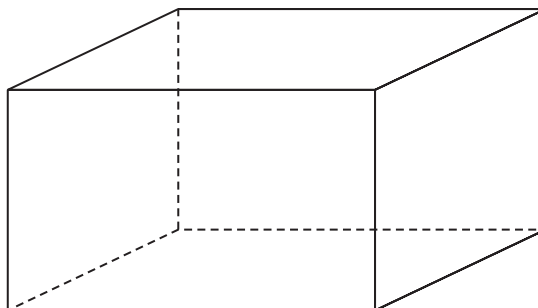


(1)

- (b) Write down the mathematical name of an 8-sided polygon.

.....
(1)

Here is a solid prism.



- (c) (i) Write down the mathematical name of this prism.

.....
(2)

- (ii) How many vertices does the prism have?

(Total for Question 3 is 4 marks)



4 Mike is going to buy

- 1 hammer at £6
- 2 boxes of nails at £3.50 for each box
- 4 pieces of wood at £4.20 for each piece
- some pairs of gloves at £1.80 for each pair

Mike has £40 to spend in total on these items.
He wants to buy as many pairs of gloves as he can.

Work out the greatest number of pairs of gloves that Mike can buy.

.....
(Total for Question 4 is 4 marks)

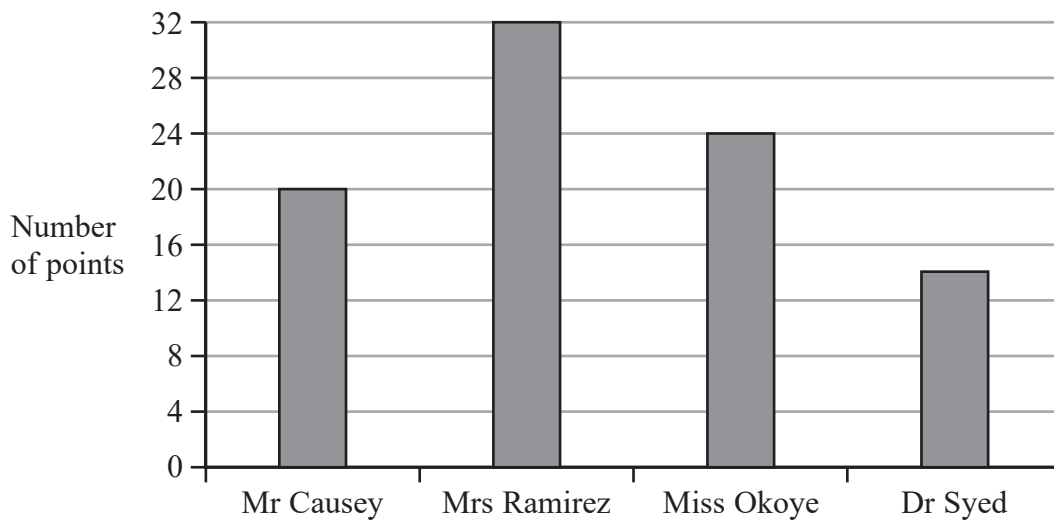
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- 5 The bar chart gives information about the number of points scored by each of four teachers in a quiz.

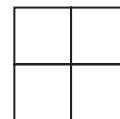


Joseph starts to draw a pictogram, shown below, for this information.

The pictogram shows the number of points scored by Mr Causey and the number of points scored by Mrs Ramirez.

Mr Causey	
Mrs Ramirez	
Miss Okoye	
Dr Syed	

Key:



represents points

Complete the pictogram, including the key.

(Total for Question 5 is 4 marks)



6 (a) Simplify $3r \times 5t$

.....
(1)

(b) Solve $4x + 5 = 27$

$x =$
(2)

$$P = 7w - 5y$$

(c) Find the value of P when $w = 2$ and $y = 4$

$P =$
(2)

$$Q = 2u^2 - 5$$

(d) Find the value of Q when $u = -3$

$Q =$
(2)

(Total for Question 6 is 7 marks)



- 7 Mohsen is going to a party.
He will choose at random one shirt from the three shirts and one pair of trousers from the three pairs of trousers in the list below.

Shirts	Trousers
Blue (B)	Green (G)
Red (R)	Orange (O)
Yellow (Y)	Purple (P)

- (a) Write down all the possible combinations that Mohsen can choose.

.....

.....

.....

(2)

- (b) Find the probability that Mohsen chooses the red shirt to wear to the party.

.....

(1)

There are 20 counters in a bag.

4 of the counters are pink.

9 of the counters are white.

The rest of the counters are black.

Jean takes at random one counter from the bag.

- (c) Work out the probability that Jean takes a black counter.

.....

(2)

(Total for Question 7 is 5 marks)



8 Here is a rectangle.

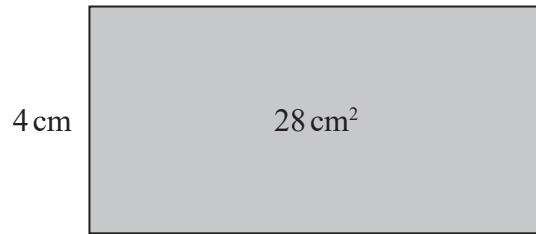


Diagram **NOT** accurately drawn

The area of the rectangle is 28 cm²

Three of these rectangles are used to make the shape below.

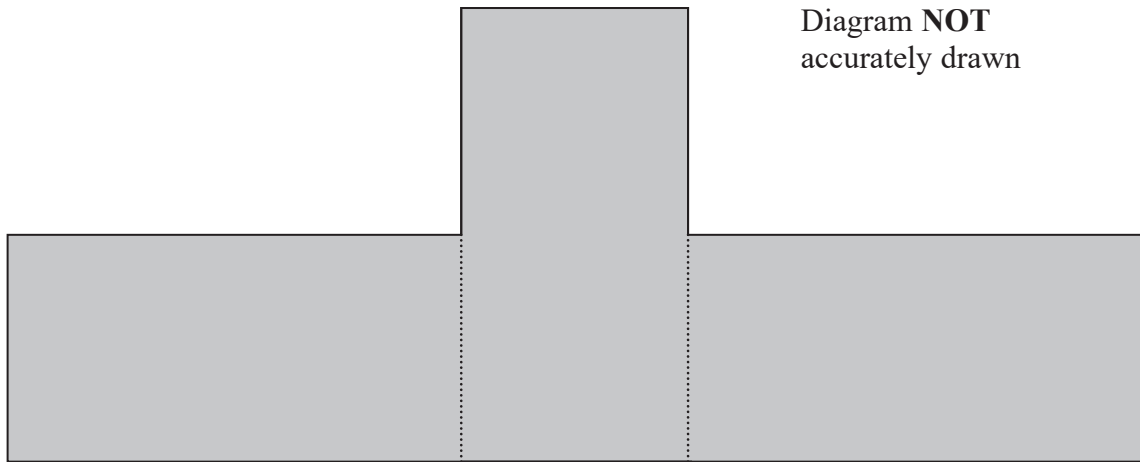


Diagram **NOT** accurately drawn

Work out the perimeter of the shape.

..... cm

(Total for Question 8 is 4 marks)

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