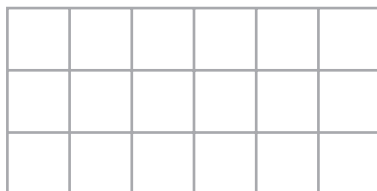


Answer ALL TWENTY SEVEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 Here is a shape made of squares.



- (a) Shade $\frac{1}{6}$ of the shape.

(1)

- (b) Change $\frac{19}{5}$ into a mixed number.

.....
(1)

$\frac{7}{11}$ of a class walk to school.

- (c) What fraction of the class do **not** walk to school?

.....
(1)

- (d) Write down a fraction that is equivalent to $\frac{7}{9}$

.....
(1)

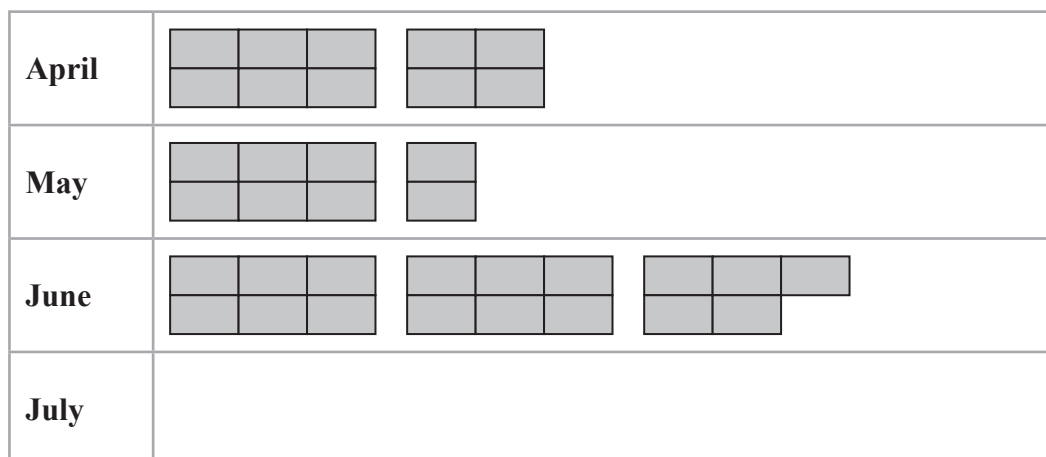
- (e) Write 0.03 as a fraction.

.....
(1)

(Total for Question 1 is 5 marks)



- 2 The pictogram gives information about the number of eggs laid by Ellie's chickens in April, in May and in June.



 represents 24 eggs

- (a) How many eggs were laid by Ellie's chickens in April?

.....
(1)

Ellie's chickens laid more eggs in June than in May.

- (b) How many more?

.....
(2)

Ellie's chickens laid 52 eggs in July.

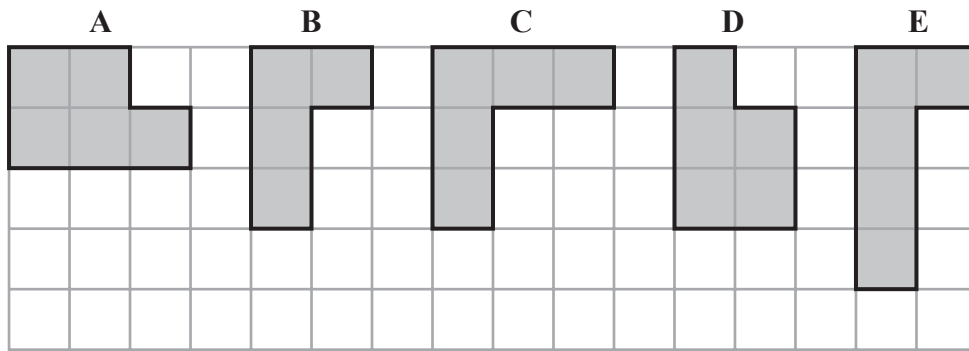
- (c) Show this information on the pictogram.

(1)

(Total for Question 2 is 4 marks)



- 3 The diagram shows five shaded shapes on a grid of squares.

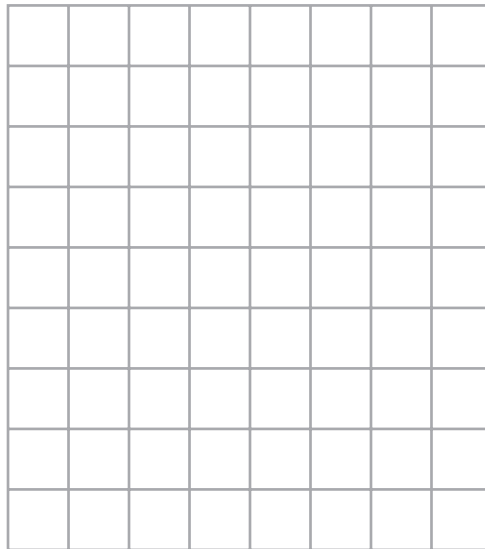


Two of the shapes are congruent.

- (a) Write down the letters of these shapes.

..... and
(1)

- (b) On the square grid below, draw a shape that is similar to but is **not** congruent to shape B.



(2)

All of the shapes on the grid have 6 sides.

- (c) Write down the mathematical name for a shape that has 6 sides.

.....
(1)

(Total for Question 3 is 4 marks)



4 There are 12 beads in a bag.

6 of the beads are green

4 of the beads are blue

2 of the beads are pink

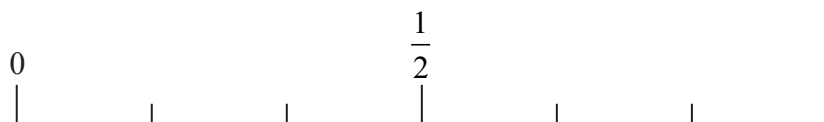
Peter takes at random a bead from the bag.

(a) Circle the word in the list below that best describes the likelihood that the bead is green.

impossible unlikely evens likely certain

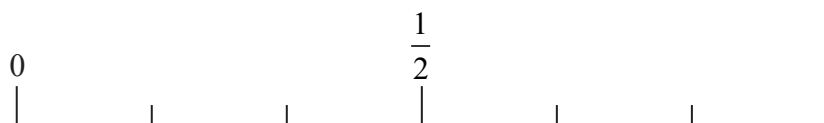
(1)

(b) On the probability scale, mark with a cross (×) the probability that the bead is orange.



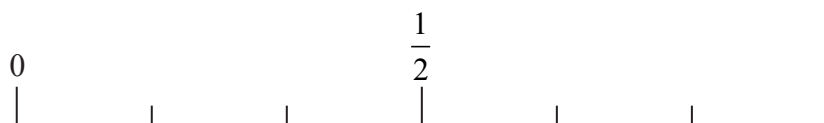
(1)

(c) On the probability scale, mark with a cross (×) the probability that the bead is blue.



(1)

(d) On the probability scale, mark with a cross (×) the probability that the bead is green or pink.



(1)

(Total for Question 4 is 4 marks)



5 (a) Simplify $w + w + w + w - w$

.....
(1)

(b) Simplify $4 \times a \times 2$

.....
(1)

(c) Simplify $f \times f \times f \times f \times f$

.....
(1)

(d) Simplify $4c + 4h + 5c - 6h$

.....
(2)

(e) Factorise $10d + 15$

.....
(1)

(f) Make t the subject of $e = 7t + g$

.....
(2)

(Total for Question 5 is 8 marks)



6 Candles cost £3.05 each.
Theo has £30 to spend on candles.
He buys as many candles as he can for £30
Work out how much change Theo should get.

£.....

(Total for Question 6 is 3 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



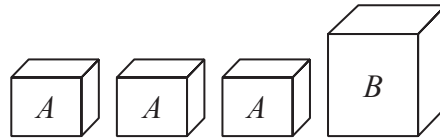


Diagram **NOT**
accurately drawn

The diagram shows four parcels.

The total weight of the four parcels is 8.3 kg.

The weight of the parcel labelled *B* is 3.2 kg.

Each of the three parcels labelled *A* have the same weight.

(a) Work out the weight of each of the parcels labelled *A*.

..... kg
(2)

Here are another three parcels.

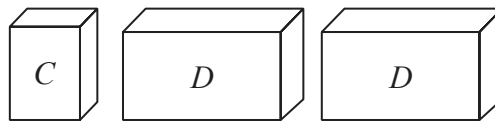


Diagram **NOT**
accurately drawn

The total weight of the three parcels is 9.45 kg.

Each of the two parcels labelled *D* have the same weight.

The weight of each parcel labelled *D* is $3 \times$ the weight of the parcel labelled *C*.

(b) Work out the weight of the parcel labelled *C*.

..... kg
(2)

(Total for Question 7 is 4 marks)



- 8 There are 150 people at an international conference. These 150 people were each asked to say what their main method of transport was to get to the conference. The two-way table shows some information about these people and their answers.

	bus	train	plane	total
men		15		80
women	17			
total	29	43		150

- (a) Complete the two-way table.

(3)

One of the men from these 150 people is selected at random.

- (b) Write down the probability that this man's main method of transport was train.

.....
(1)

(Total for Question 8 is 4 marks)

