

Answer all TWENTY TWO questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 The table shows the land area, in  $\text{km}^2$ , of each of six African countries.

Country	Land area ( $\text{km}^2$ )
Botswana	566 730
Kenya	569 140
Namibia	823 290
Somalia	627 340
Tanzania	885 800
Zambia	743 390

- (a) Write down the name of the country with the greatest land area.

.....  
(1)

- (b) Write 823 290 correct to the nearest thousand.

.....  
(1)

- (c) Work out the difference between the land area of Botswana and the land area of Kenya.

.....  $\text{km}^2$   
(1)

The land area of the Gambia is  $10\,120\text{ km}^2$

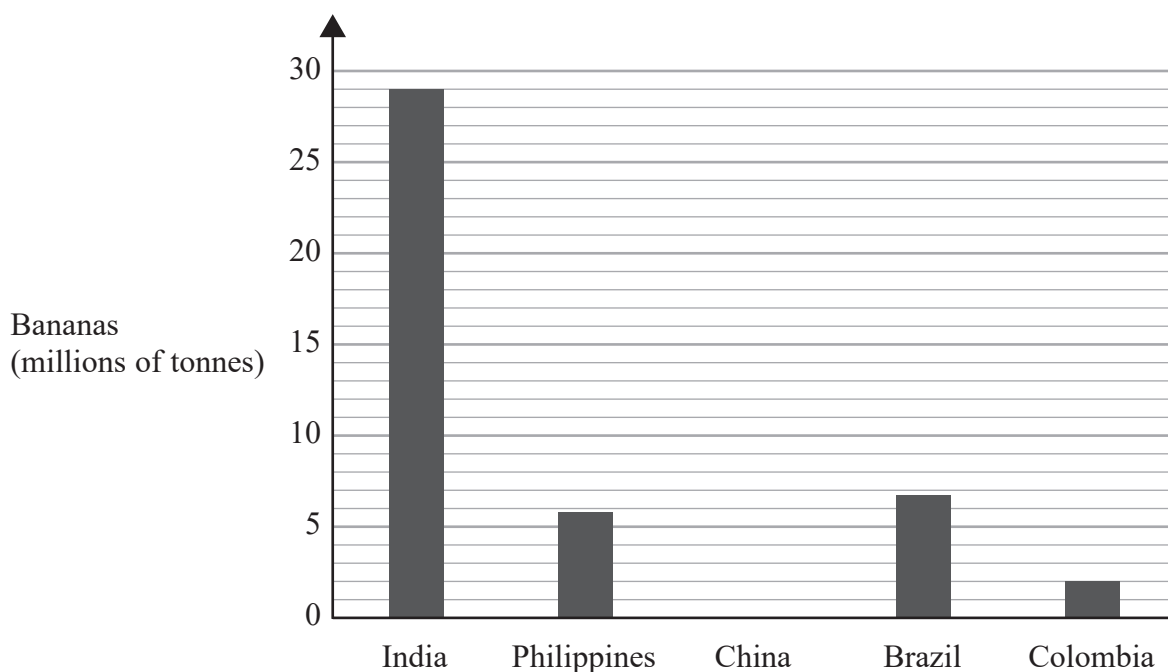
- (d) Write the number 10 120 in words.

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

(Total for Question 1 is 4 marks)



- 2 The bar chart shows information about the weight, in millions of tonnes, of bananas produced by each of four countries in 2016



In 2016, China produced 13 million tonnes of bananas.

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

(1)

One of these countries produced 6.8 million tonnes of bananas in 2016

- (b) Which country?

.....  
(1)

In 2016, a total of 113 million tonnes of bananas was produced worldwide.

- (c) What fraction of the 113 million tonnes of bananas was produced in India in 2016?

.....  
(2)

**(Total for Question 2 is 4 marks)**



3 (a) Complete the following sentences by writing a sensible metric unit on each of the dotted lines.

(i) The distance from Cairo to Nairobi is 5211 .....

(ii) The weight of an egg is 20 .....

(iii) The area of the floor of a classroom is 260 .....

(3)

Cara has a bottle of juice.

There is 1 litre of juice in the bottle.

Cara makes some drinks.

She uses exactly 30 millilitres of this juice to make each drink.

Cara makes as many drinks as possible.

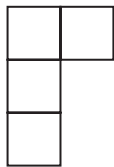
(b) How many drinks does Cara make?

.....  
(3)

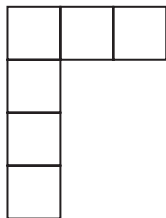
**(Total for Question 3 is 6 marks)**



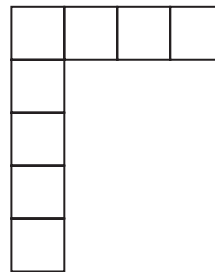
4 Here is a sequence of patterns made from square tiles.



Pattern number 1



Pattern number 2



Pattern number 3

(a) In the space below, draw Pattern number 4

(1)

(b) Complete the table.

<b>Pattern number</b>	1	2	3	4	5
<b>Number of tiles</b>	4	6	8		

(1)

(c) Work out the number of tiles in Pattern number 30

(2)



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Liz says that in Pattern number  $n$ , the number of tiles is  $2n$ .

(d) Is Liz correct?

You must give a reason for your answer.

(1)

**(Total for Question 4 is 5 marks)**

**5** Paul is buying a sandwich and a drink in a meal deal.

He can have a cheese sandwich ( $C$ ) or an egg sandwich ( $E$ ) or a tomato sandwich ( $T$ ).

He can have orange juice ( $O$ ) or milk ( $M$ ) or water ( $W$ ) to drink.

Write down all the possible combinations Paul can buy.

**(Total for Question 5 is 2 marks)**



6 (a) Write  $\frac{1}{4}$  as a decimal.

.....  
(1)

(b) Write  $\frac{34}{10}$  as a mixed number in its simplest form.

.....  
(2)

(c) Show that  $\frac{3}{4} \div \frac{15}{16} = \frac{4}{5}$

(2)

(Total for Question 6 is 5 marks)

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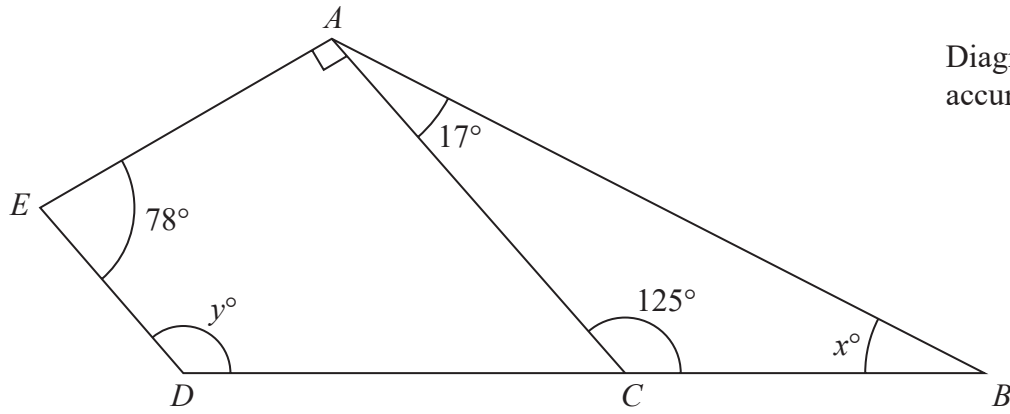


Diagram **NOT**  
accurately drawn

$ABDE$  is a quadrilateral.  
 $ABC$  is a triangle.  
 $DCB$  is a straight line.

(a) (i) Work out the value of  $x$ .

$$x = \dots\dots\dots (1)$$

(ii) Give a reason for your answer.

(1)

(b) Work out the value of  $y$ .  
 Give a reason for each stage of your working.

$$y = \dots\dots\dots (3)$$

(Total for Question 7 is 5 marks)

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8 (a) Simplify  $6m - 2k + 5m - k$

.....  
(2)

$$P = 2a + 3b$$

(b) Work out the value of  $P$  when  $a = 5$  and  $b = 8$

$P =$  .....  
(2)

$$P = 2a + 3b$$

(c) Work out the value of  $a$  when  $P = 16$  and  $b = 20$

$a =$  .....  
(3)

(Total for Question 8 is 7 marks)

