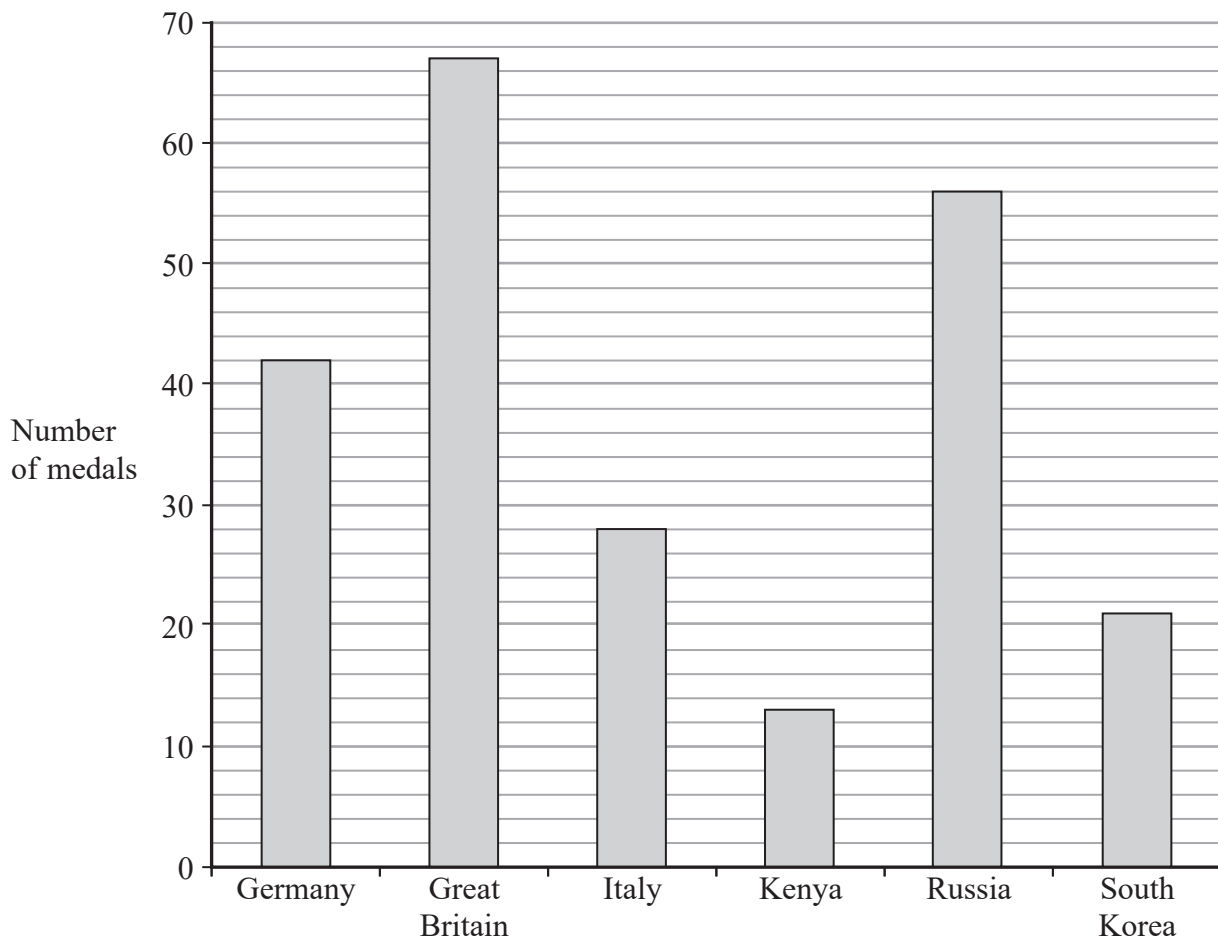1 The bar chart gives information about the total number of medals won by each of six countries at the 2016 Olympic Games.

(a) Which of these countries won the fewest total number of medals?

....

(1)

Great Britain won 27 gold medals.

(b) How many of the medals won by Great Britain were **not** gold medals?

....

(2)

(c) Write down the ratio of the total number of medals won by Russia to the total number of medals won by Germany.
Give your ratio in its simplest form.

....

(2)

The USA won
        46 gold medals
        37 silver medals
        38 bronze medals

(d) What fraction of the total number of medals won by the USA were gold medals?

....

(2)

(Total for Question 1 is 7 marks)

2 The table shows the average number of spectators per match, for each of six Spanish football teams, in one season.

Team	Average number of spectators per match
Real Betis	46 393
Valencia	38 699
Barcelona	65 731
Athletic Bilbao	37 378
Sevilla	33 069
Real Madrid	65 027

(a) Which team had the lowest average number of spectators per match?

....

(1)

(b) Write the number 65 731 correct to the nearest thousand.

....

(1)

(c) Write down the value of the 6 in the number 38 699

....

(1)

In one match, Sevilla played Valencia.
In the match, Sevilla had 8 shots on target and Valencia had 12 shots on target.

(d) Write the ratio 8:12 in its simplest form.

....

(1)

In the same match, Valencia had 72% possession of the ball.

(e) Write 72% as a fraction in its simplest form.

....

(2)

(Total for Question 2 is 6 marks)

3 In a field, there are 60 sheep and 24 cows.

(a) Find the ratio of the number of sheep to the number of cows.
Give your ratio in its simplest form.

....
(2)

In a barn, there are only white ducks and brown ducks.
In the barn, the ratio

number of white ducks : number of brown ducks = 3 : 7

(b) What fraction of the ducks in the barn are white?

....
(1)

Giles and Sarah share some bales of hay in the ratio 11 : 4

Sarah receives 20 bales of hay.

(c) Work out how many bales of hay are shared in total.

....
(3)

(Total for Question 3 is 6 marks)

4 (a) Write the ratio 42 : 96 in its simplest form.

....

(2)

There are only apples and pears in a fruit basket so that

the number of apples : the number of pears = 4 : 11

(b) What fraction of the fruit in the basket is pears?

....

(1)

(Total for Question 4 is 3 marks)

5 (a) Write the ratio 32 : 80 in its simplest form.

....
(2)

There are only red counters and blue counters in a bag.
In the bag
the number of red counters : the number of blue counters = 5 : 7

(b) What fraction of the counters in the bag are red?

....
(1)

(Total for Question 5 is 3 marks)

6 Last season, Alisha and Jaya scored goals for their team in the ratio 4 : 7
Jaya scored 39 more goals than Alisha.

Work out the number of goals Alisha scored.

....

(Total for Question 6 is 3 marks)

7 (a) Write these fractions in order of size.
   Start with the smallest fraction.

$$\frac{3}{8} \qquad \frac{1}{4} \qquad \frac{7}{20} \qquad \frac{5}{16}$$

....

(2)

There are only green beads and red beads in a bag.

The ratio of the number of green beads to the number of red beads is 5 : 9

(b) What fraction of the beads in the bag are green beads?

....

(1)

(Total for Question 7 is 3 marks)

8 Bella and Millie share some money in the ratio 5:2

Bella receives 10.50 euros more than Millie.

Work out the total amount of money they share.

.... euros

(Total for Question 8 is 3 marks)

9 Brendon, Asha and Julie share some money in the ratios 3 : 2 : 6
The **total** amount of money that Asha and Julie receive is $36

Work out the amount of money that Brendon receives.

$..

(Total for Question 9 is 3 marks)

10 Danil, Gabriel and Hadley share some money in the ratios $3:5:9$
The difference between the amount of money that Gabriel receives and the amount of money that Hadley receives is 196 euros.

Work out the amount of money that Danil receives.

.... euros

(Total for Question 10 is 3 marks)

11 Work out the difference between the largest share and the smallest share when 3450 yen is divided in the ratios $2:6:7$

.... yen

(Total for Question 11 is 3 marks)

12 Anna and Lionel share $675 in the ratio 4 : 5

Lionel gives $\frac{3}{5}$ of his share of the money to his mother.

How much money does Lionel give to his mother?

$...

(Total for Question 12 is 3 marks)

13 C grams of chocolate is shared in the ratios $2:5:8$
The difference between the largest share and the smallest share is 390 grams.

Work out the value of C

$C = $...

(Total for Question 13 is 3 marks)

14 On a farm there are chickens, ducks and pigs.

The ratio of the number of chickens to the number of ducks is $7:2$
The ratio of the number of ducks to the number of pigs is $5:9$
There are 36 pigs on the farm.

Work out the number of chickens on the farm.

....

(Total for Question 14 is 3 marks)

15 3 years ago, the ratio of Tom's age to Clemmie's age was 2 : 7
Tom is now 15 years old and Clemmie is now x years old.

Find the value of x.

$x =$ ....

(Total for Question 15 is 3 marks)

16 Mikhal has 1200 grams of cake mixture.

He is going to make 3 cakes, cake *A*, cake *B* and cake *C*.

$\dfrac{4}{15}$ of the weight of the cake mixture will be used to make cake *A*.

The rest of the cake mixture will be used to make cake *B* and cake *C*.

The weight of the cake mixture used to make cake *B* and the weight of the cake mixture used to make cake *C* will be in the ratio $3:8$

Work out the weight of the cake mixture used to make each of cake *A*, cake *B* and cake *C*.

Cake *A* .... grams

Cake *B* .... grams

Cake *C* .... grams

(Total for Question 16 is 4 marks)

17 Kim spends N

Of this, she spends

40% on food

$\dfrac{1}{4}$ on clothes

and the rest on petrol

Kim spends P on petrol.

Work out the ratio $P:N$ in the form $a:b$ where a and b are integers.
Give your answer in its simplest form.

....

(Total for Question 17 is 4 marks)

18 There are 60 children in a club.

In the club, the ratio of the number of girls to the number of boys is $3:1$

$\dfrac{3}{5}$ of the girls play a musical instrument.

$\dfrac{4}{5}$ of the boys play a musical instrument.

What fraction of the 60 children play a musical instrument?

19 Pieter owns a currency conversion shop.

Last Monday, Pieter changed a total of 20 160 rand into a number of different currencies.

He changed $\frac{3}{10}$ of the 20 160 rand into euros.

He changed the rest of the rands into dollars, rupees and francs in the ratios $9:5:2$

Pieter changed more rands into dollars than he changed into francs.

Work out how many more.

.... rand

(Total for Question 19 is 4 marks)

20 Andreas, Isla and Paulo share some money in the ratios 3 : 2 : 5

The **total** amount of money that Isla and Paulo receive is £76 more than the amount of money that Andreas receives.

Andreas buys a video game for £48.50 with some of his share of the money.

Work out how much money Andreas has left from his share of the money when he has bought the video game.

£...

(Total for Question 20 is 4 marks)

21 Rose and Haydn share £250 in the ratio 2:3

Rose gives all her share of the money to charity.
Haydn gives 42% of his share of the money to charity.

Rose gives more money to charity than Haydn gives to charity.

Work out how much more.

£..

(Total for Question 21 is 5 marks)

22 120 children go on an activity holiday.
The ratio of the number of girls to the number of boys is $3:5$

On Sunday, all the children either go sailing or go climbing.

$\dfrac{16}{25}$ of the boys go climbing.

Twice as many girls go sailing as go climbing.

Work out how many children go sailing on Sunday.

....

(Total for Question 22 is 6 marks)

23 Behnaz makes 300 celebration cards so that

$$\frac{\text{number of}}{\text{birthday cards}} : \frac{\text{number of}}{\text{anniversary cards}} : \frac{\text{number of}}{\text{congratulations cards}} = 7:5:3$$

$\frac{2}{5}$ of the birthday cards have numbers on them.

36% of the anniversary cards have numbers on them.
None of the congratulations cards have numbers on them.

Work out what fraction of the 300 cards have numbers on them.
Give your answer in its simplest form.

....

(Total for Question 23 is 5 marks)