

At a cake sale, Michael sells some lemon cakes and some chocolate cakes.

the number of lemon cakes he sells : the number of chocolate cakes he sells = 2 : 7

Michael sells a total of 162 cakes.

**1** (c) Work out the number of lemon cakes Michael sells.

.....  
(2)

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**(Total for Question 1 is 2 marks)**

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**2** 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.

£.....

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(Total for Question 2 is 4 marks)

- 3** 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.

\$.....

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

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

.....  
(2)

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

- 5 120 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.
- $\frac{16}{25}$  of the boys go climbing.
- Twice as many girls go sailing as go climbing.
- Work out how many children go sailing on Sunday.

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(Total for Question 5 is 6 marks)

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6 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.

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(Total for Question 6 is 3 marks)

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7 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.

£ .....

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(Total for Question 7 is 5 marks)

8 Mikhal has 1200 grams of cake mixture.

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

$\frac{4}{15}$  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

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(Total for Question 8 is 4 marks)



**9** 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

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**(Total for Question 9 is 4 marks)**

**10** 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

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**(Total for Question 10 is 3 marks)**

**11** Behnaz makes 300 celebration cards so that

number of birthday cards : number of anniversary cards : number of 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.

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(Total for Question 11 is 5 marks)

**12** In November, Andre received a monthly salary of 2500 euros.

Of this he spent

40% on his rent

300 euros on leisure

The rest of Andre's monthly salary was spent on household bills and on food where

the amount spent on household bills : the amount spent on food = 3 : 7

Work out how much of his November monthly salary Andre spent on food.

..... euros

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**(Total for Question 12 is 4 marks)**

**13** 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

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**(Total for Question 13 is 3 marks)**

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**14** A bag contains only pink sweets, white sweets, green sweets and red sweets.

The table gives each of the probabilities that, when a sweet is taken at random from the bag, the sweet will be green or the sweet will be red.

Sweet	pink	white	green	red
Probability			0.2	0.35

The ratio

number of pink sweets : number of white sweets = 2 : 1

There are 28 red sweets in the bag.

Work out the number of white sweets in the bag.

**15**  $C$  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  $C$

$C = \dots\dots\dots$

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**(Total for Question 15 is 3 marks)**

**16** 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)

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(Total for Question 16 is 6 marks)



**17** In a box, there are only green sweets, orange sweets and yellow sweets.

There are 280 sweets in the box so that

the number of green sweets : the number of orange sweets = 2 : 3  
and

the number of orange sweets : the number of yellow sweets = 1 : 5

Work out how many green sweets there are in the box.

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(Total for Question 17 is 3 marks)

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- 18** 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.

**19** Roland, Seiso and Tim share the total cost of buying a plot of land.

Roland and Seiso share some of the cost in the ratio 2 : 5

Roland's share of the cost is \$1700

Tim's share of the cost is \$2150 **more** than Roland's share.

Work out the total cost of buying the plot of land.

\$.....

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(Total for Question 19 is 4 marks)

- 20** One month, Abbad raised money for charity by being sponsored to run and to walk.  
His target was to raise 700 dirhams.

During the month, Abbad recorded a total distance of 135 km by running and by walking.  
The ratio

$$\text{number of km he ran : number of km he walked} = 2 : 7$$

Abbad received 8 dirhams for each km he ran and 5 dirhams for each km he walked.

Abbad raised more money than his 700 dirhams target.

How much more?

..... dirhams

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**(Total for Question 20 is 4 marks)**

- 21** Last season, the number of goals scored by Arjun, by Simon and by Kath for their football team were in the ratios  $2:5:8$

Simon scored 12 more goals than Arjun.

Work out the number of goals scored by Kath.

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(Total for Question 21 is 3 marks)

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- 22** Nancy has some coins with a total value of 85 pence.  
She has only 2 pence coins and 5 pence coins.  
The ratio

$$\text{number of 2 pence coins} : \text{number of 5 pence coins} = 1 : 3$$

Nancy has more 5 pence coins than 2 pence coins.

How many more?

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(Total for Question 22 is 4 marks)

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