You must write down all the stages in your working.

Q1

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. $\frac{3}{10} \times 20\,160 = 2016$ rands (1)

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.

Remaining Rands = 18 144

1 part = 18 144 ÷ 16
= 1134 (1)

Rands changed to Dollar = 9 × 1134 = 10 206
Rands changed to Francs = 2 × 1134 = 2268 } (1)

Difference = 7938 rands (1)

..... rand **(4)**

Q2

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.

D : G : H
3 5 9
4

4 parts = 196
1 part = 49

Danil = 49 × 3
= 147

147 ..... euros

(3)

Q3

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.

G : O : Y

2 3

1 5) ×3

= 2 3 15

1 part = 280 ÷ 20

= 14

Number of Green sweets = 14 × 2

= 28

(3)

Q4

Eli and Peta share $275 in the ratio 2 : 3

Eli gives $\frac{3}{11}$ of his share to charity.

Peta gives 0.32 of her share to charity.

Work out the total amount that Eli and Peta give to charity.

1 part = 275 ÷ 5 (1)
= 55

Eli = 2 × 55
= 110

Peta = 3 × 55
= 165 (1)

Money to Charity

Eli : $\frac{3}{11}$ × 110

= 30

Peta = 0.32 × 165
= 52.8 (1)

Total = 30 + 52.8
= 82.8

$ 82.8 (1)

(4)

Q5

The people working for a company work in Team A or in Team B.

number of people in Team A : number of people in Team B = 3 : 4

$\frac{4}{5}$ of Team A work full time.

24% of Team B work full time.

Work out what fraction of the people working for the company work full time.
Give your fraction in its simplest form.

A full time $= \frac{4}{5} \times \frac{3}{7} = \frac{12}{35}$

B full time $= 0.24 \times \frac{4}{7} = \frac{24}{175}$

Full time $= \frac{12}{35} + \frac{24}{175}$

$= \frac{12}{25}$

(4)

Q6

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

1 part = 3420 ÷ 15
= 228

Largest = 228 × 7
= 1596

Smallest = 228 × 2
= 458

Difference = 1596 − 458
= 1138

1138 yen

Q7

Pau, Sam and Tia share £240 in the ratios 3 : 4 : 5

Sam and Tia each give £10 of their share to Pau.

Work out the ratios of the amounts of money that Pau, Sam and Tia now have.
Give your answer in its simplest form.

1 part = 240 ÷ 12 = 20

Paul = 20 × 3
= 60

Sam = 20 × 4
= 80

Tia = 20 × 5
= 100

New Ratio = P : S : T
80 : 70 : 90

8 : 7 : 9 **(4)**

Q8

Avril bakes a cake.

She uses flour, butter and sugar such that

weight of flour : weight of butter = 6 : 5
weight of butter : weight of sugar = 3 : 2

Avril uses 120 grams of sugar.

Work out the weight of flour Avril uses.

F : B : S

6 5

x 3

3 : 2

x 5

18 : 15 : 10

1 part = 120 ÷ 10

(4) = 12

Flour used = 18 x 12

= 216g

Q9

Ishir plants 600 bulbs in a garden.
He plants tulip bulbs, crocus bulbs and daffodil bulbs so that

number of tulip bulbs : number of crocus bulbs : number of daffodil bulbs = 9 : 4 : 2

45% of the tulip bulbs are for yellow flowers.

$\frac{5}{8}$ of the crocus bulbs are for yellow flowers.

All of the daffodil bulbs are for yellow flowers.

Work out the number of bulbs that are for yellow flowers.

1 part = $\frac{600}{15}$

= 40

Tulip = 9 × 40 = 360

Crocus = 4 × 40 = 160

Daffodil = 2 × 40 = 80

Yellow Tulip = 0.45 × 360 = 162

Yellow Crocus = $\frac{5}{8}$ × 160 = 100

Yellow flowers = 162 + 100 + 80

= 342

.....**(5)**

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