

R7. Percentage of an amount

OCR

(b) Boris wins £5000.

He gives $\frac{1}{5}$ of the money to his wife.

He gives 30% of the remaining money to his children.

What percentage of the **original** amount does Boris have left?

(b)..... % **[5]**

(b) Boris wins £5000.

He gives $\frac{1}{5}$ of the money to his wife.

He gives 30% of the remaining money to his children.

What percentage of the **original** amount does Boris have left?

$$\frac{2800}{5000} = 0.56 = 56\%$$

Wife

$$\frac{1}{5} \text{ of } £5000 = £1000$$

$$\text{Remaining} = £4000$$

$$\begin{aligned} \rightarrow 30\% \text{ of } £4000 &= \\ &= £1200 \end{aligned}$$

$$\begin{aligned} \underline{\underline{\text{left } £5000 - 1200 - 1000}} \\ &= £2800 \end{aligned}$$

(b) 56 % [5]

- (b)** There are 120 people in the evening.
A buffet is ordered for 85% of these people.

For how many people is the buffet ordered?

(b) **[2]**

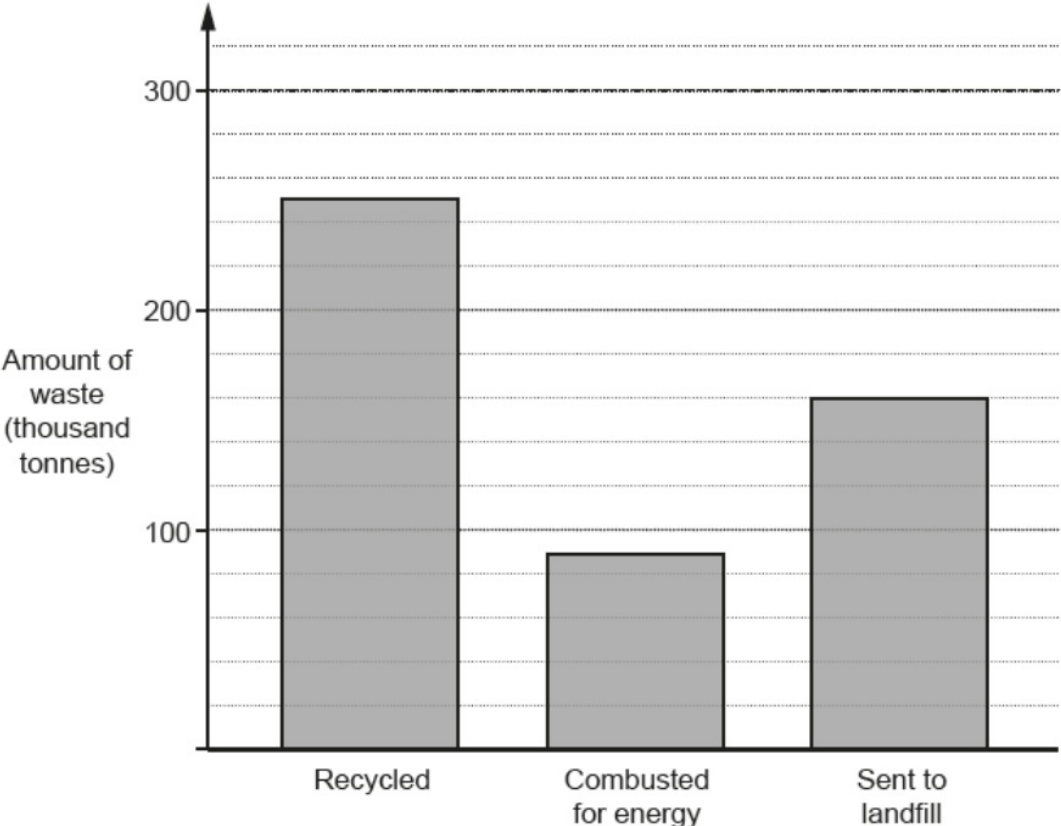
- (b) There are 120 people in the evening.
A buffet is ordered for 85% of these people.

For how many people is the buffet ordered?

85% of 120

(b)102.....[2]

4 This diagram shows how a council disposed of waste in 2016. The total amount of waste was 500 thousand tonnes.



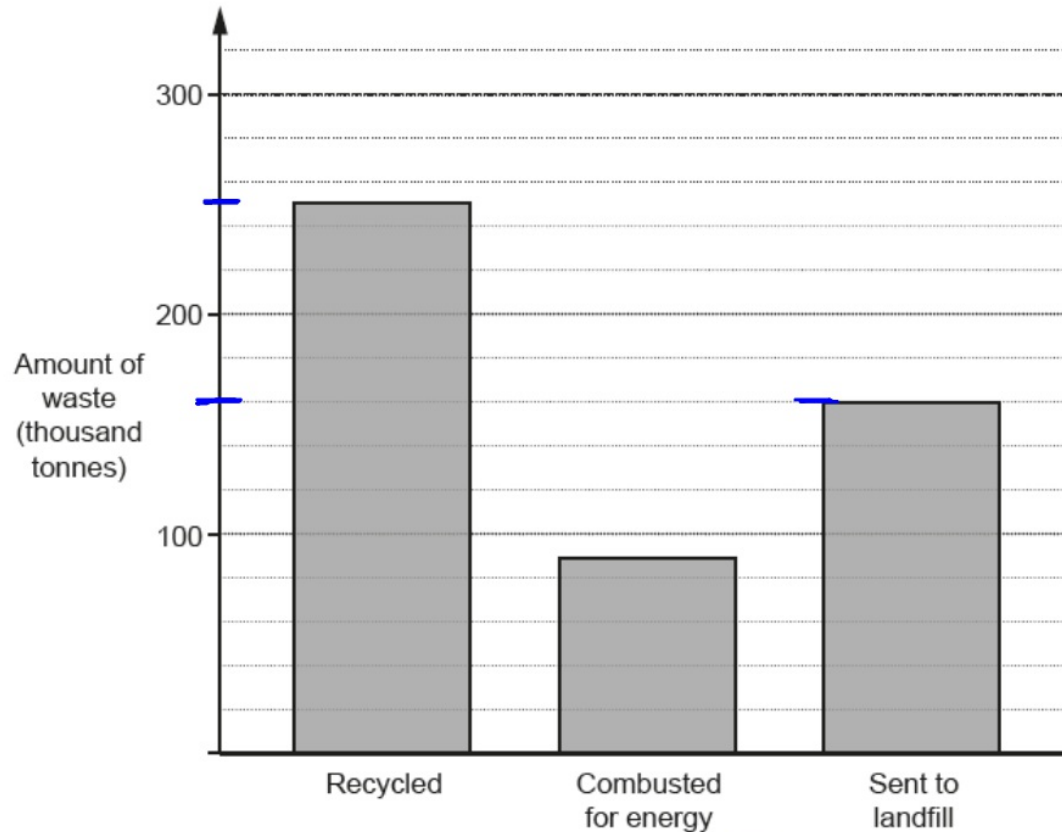
(a) How much waste was recycled?

(a) thousand tonnes [1]

(b) The council had a target to send less than 30% of the waste to landfill in 2016.

Did the council meet its target in 2016?
Justify your answer.

- 4 This diagram shows how a council disposed of waste in 2016. The total amount of waste was 500 thousand tonnes.



- (a) How much waste was recycled?

(a) 250 thousand tonnes [1]

$$\frac{160}{500} = \frac{16}{50} = \frac{32}{100} = 32\%$$

- (b) The council had a target to send less than 30% of the waste to landfill in 2016.

Did the council meet its target in 2016?
Justify your answer.

↪ out of 100

No, they sent 32%
not 30%

12 (a) Three schools provide this information.

- $\frac{3}{7}$ of the pupils at Harwood are girls.
- 42% of the pupils at Crompton are girls.
- The ratio of girls to boys at Astley is 4 : 5.

Write the schools in the order of their proportion of girls, lowest to highest.
Show how you reached your answer.

(a) [4]
lowest

12 (a) Three schools provide this information.

- $\frac{3}{7}$ of the pupils at Harwood are girls.
- 42% of the pupils at Crompton are girls.
- The ratio of girls to boys at Astley is 4 : 5.

Write the schools in the order of their proportion of girls, lowest to highest.

Show how you reached your answer.

<u>Harwood</u>	Crompton	Astley
$\frac{3}{7}$	42%	$\frac{4}{9}$
0.428	0.42	0.444...

(a) Crompton Harwood Astley [4]
lowest

4 Karen made 40 cakes.

She gives $\frac{1}{5}$ of the cakes to Andrew.

She gives 10% of the 40 cakes to Chris.

What fraction of the 40 cakes does she have left?

..... [3]

4 Karen made 40 cakes.

She gives $\frac{1}{5}$ of the cakes to Andrew.

She gives 10% of the 40 cakes to Chris.

What fraction of the 40 cakes does she have left?

Andrew $\frac{1}{5}$ of 40 = 8

Chris 10% of 40 = $\frac{4}{12}$

$$40 - 12 = 28$$

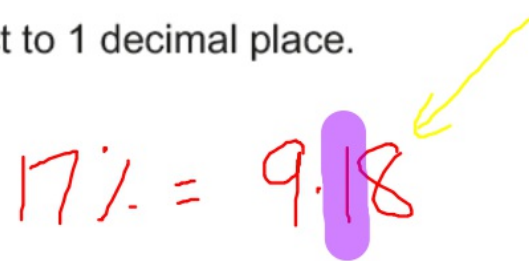
$$\checkmark \frac{28}{40} = \frac{14}{20} = \frac{7}{10}$$

Video created by W Neill

- 6** Work out 17% of 54.
Give your answer correct to 1 decimal place.

..... **[3]**

- 6 Work out 17% of 54.
Give your answer correct to 1 decimal place.

$$17\% = 9.18$$


9.2

..... [3]

(b) Lillian decides that she is going to work 7 hours each day for **only 4 days** a week.
Her earnings are to be reduced by 20%.
Lillian thinks that this reduction is reasonable.

(i) Explain why a reduction of 20% is reasonable.

.....
..... [1]

(ii) How much will Lillian earn working 4 days a week?

(b)(ii) £ [2]

- (b) Lillian decides that she is going to work 7 hours each day for **only 4 days** a week. Her earnings are to be reduced by 20%. Lillian thinks that this reduction is reasonable.

(i) Explain why a reduction of 20% is reasonable.

20% of 5 days = 1 day ✓ is fair
 $\rightarrow \frac{2}{10}$ or $\frac{1}{5}$ [1]

(ii) How much will Lillian earn working 4 days a week?

£420 - 20%

10% = £42

20% = £84

$$\begin{array}{r} 420 \\ - 84 \\ \hline 336 \end{array}$$

$$\begin{array}{l} 7 \times 4 = 28 \\ 28 \times 12 = \pounds 336 \checkmark \end{array}$$

336

(b)(ii) £ [2]

-
- 10** 60% of the people in a town are males.
20% of the males are left-handed.
21.6% of all the people are left-handed.

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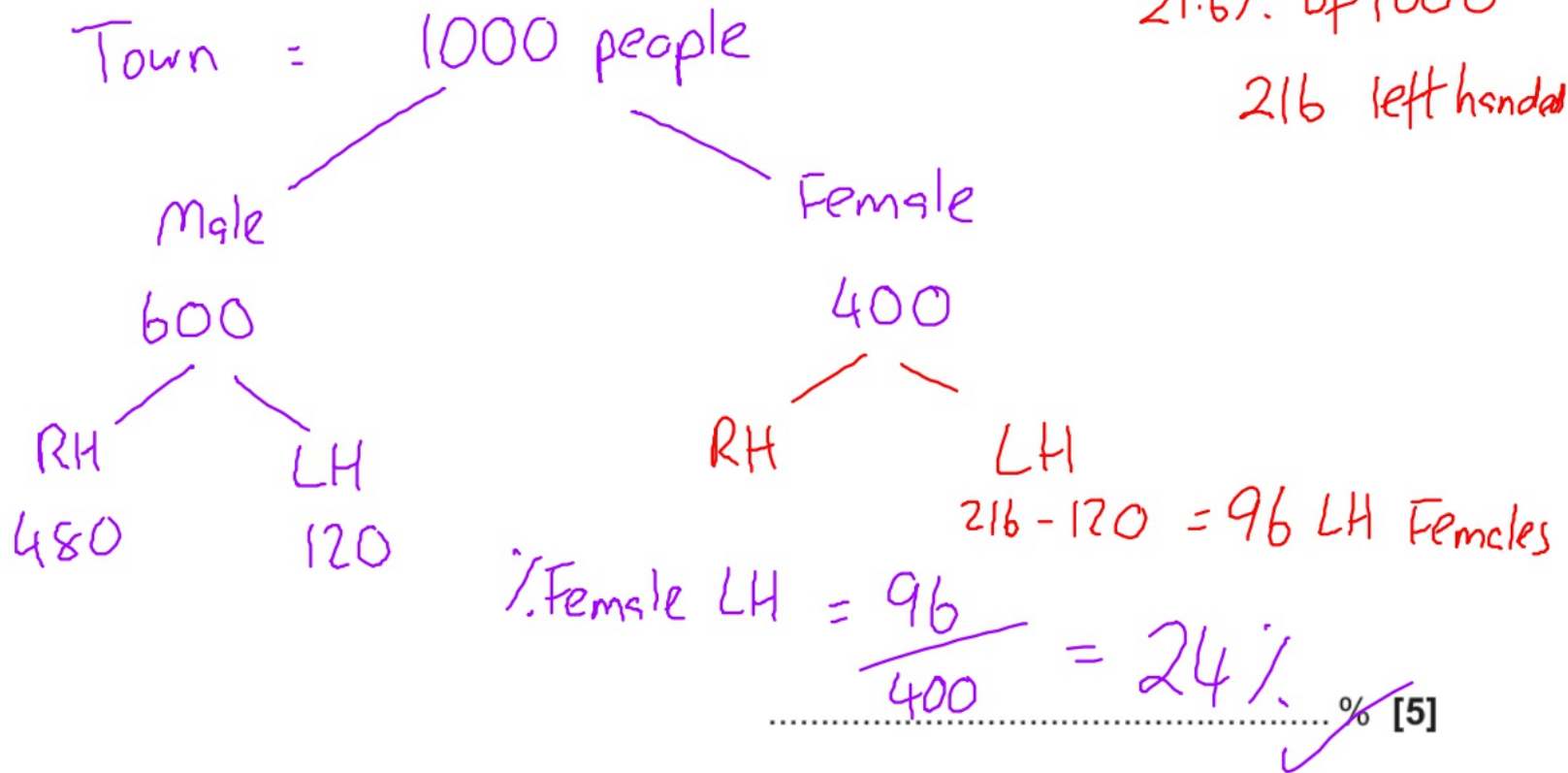
Work out the percentage of the people who are not male who are left-handed.

.....% **[5]**

- 10 60% of the people in a town are males.
20% of the males are left-handed.
21.6% of all the people are left-handed.

Created by W Neill

Work out the percentage of the people who are not male who are left-handed.



Edexcel

18 A number of students go on a coach trip.

The cost of hiring the coach is £180

The school pays 80% of this cost.

The students pay the rest of the cost.

Each student pays £1.50

Work out the number of students on the coach trip.

.....
(Total for Question 18 is 4 marks)

18 A number of students go on a coach trip.

The cost of hiring the coach is £180

The school pays 80% of this cost.

The students pay the rest of the cost.

Each student pays £1.50

Work out the number of students on the coach trip.

$\begin{matrix} \text{£1.50} = 1 \text{ student} \\ \text{£3} = 2 \text{ students} \\ \text{£36} = 24 \text{ students} \end{matrix}$

Students pay £36

$$\frac{36}{1.5} = \frac{72}{3}$$

80% of £180

10% = £18

20% = £36

→ 100% - 20% = 80%

$$\begin{array}{r} 7 \\ 180 \\ - 36 \\ \hline 144 \end{array}$$

→ School

$$3 \overline{) 72} \begin{matrix} 24 \\ \underline{6} \\ 12 \\ \underline{12} \\ 0 \end{matrix}$$

24

(Total for Question 18 is 4 marks)

7 Mary, Bianka and Steve are picking apples.

Mary picks 264 apples.

$\frac{1}{6}$ of these apples are green.

Bianka picks 150 apples.

28% of these apples are green.

Steve picks 340 apples.

15% of these apples are green.

Who picks the most green apples?

You must show all of your working.

(Total for Question 7 is 4 marks)

7 Mary, Bianca and Steve are picking apples.

Created by W Neill

Mary picks 264 apples.

$\frac{1}{6}$ of these apples are green.

$$\frac{1}{6} \text{ of } 264 = 44$$

Bianca picks 150 apples.

28% of these apples are green.

$$28\% \text{ of } 150 = 42$$

Steve picks 340 apples.

15% of these apples are green.

$$15\% \text{ of } 340 = 51$$

Who picks the most green apples?

You must show all of your working.

Steve collects most green
apples ✓

(Total for Question 7 is 4 marks)

18 Claire buys a new car for £5700

She pays a deposit of 12%

She then pays the rest of the cost in 15 equal monthly payments.

How much is each monthly payment?

£.....

(Total for Question 18 is 3 marks)

18 Claire buys a new car for £5700

She pays a deposit of 12%

She then pays the rest of the cost in 15 equal monthly payments.

How much is each monthly payment?

$$12\% \text{ of } £5700 = £684$$

$$\text{Owes } £5700 - £684 = £5016$$

$$\text{Monthly } P = £5016 \div 15 =$$

$$£ \underline{334.40} \checkmark$$

(Total for Question 18 is 3 marks)

16 Which is greater

R7 30% of 30 or 28% of 32 ?

You must show your working.

(Total for Question 16 is 3 marks)

16 Which is greater

R7 30% of 30 or 28% of 32 ?

You must show your working.

$$\begin{aligned} 30\% \text{ of } 30 \\ = 9 \end{aligned}$$

$$\begin{aligned} 28\% \text{ of } 32 \\ = 8.96 \end{aligned}$$

$$9 > 8.96$$

so 30% of 30 is greater ✓

(Total for Question 16 is 3 marks)

17 Jamal has some counters in a bag.

R7 36% of the counters are red
 the rest of the counters are yellow

Jamal puts 50 blue counters into the bag.
Now 25% of the counters in the bag are blue.

Work out the number of yellow counters in the bag.

.....
(Total for Question 17 is 3 marks)

17 Jamal has some counters in a bag.

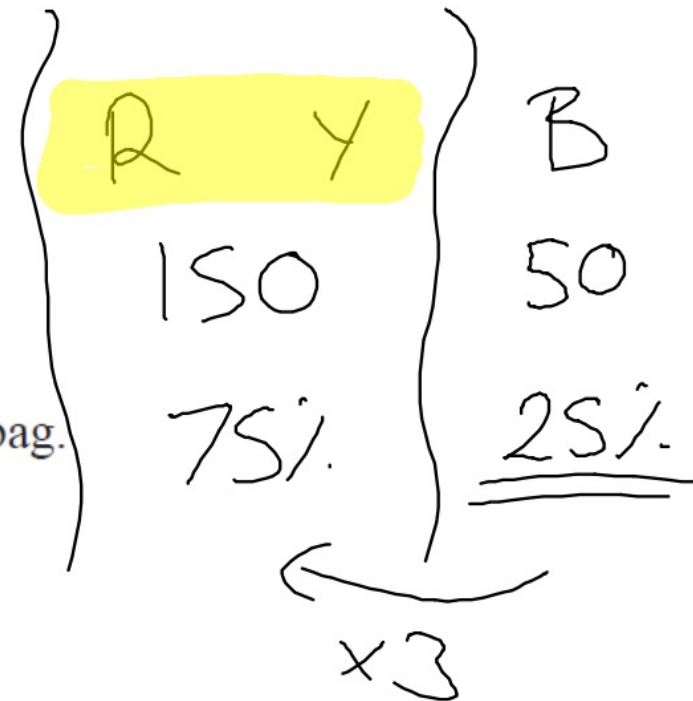
R7 36% of the counters are red
the rest of the counters are yellow

→ Jamal puts 50 blue counters into the bag.
Now 25% of the counters in the bag are blue.

Work out the number of yellow counters in the bag.

$$\text{Red } 36\% \text{ of } 150 = 54$$

$$\begin{array}{r} \text{Yellow} = 150 \\ - 54 \\ \hline 96 \end{array}$$



96 ✓

(Total for Question 17 is 3 marks)

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5 Work out 60% of 70

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

5 Work out 60% of 70

$$10\% \text{ of } 70 = 7$$

$$\begin{array}{l} 10\% = 7 \\ \times 6 \quad \downarrow \quad \quad \quad \downarrow \quad \times 6 \\ 60\% = 42 \end{array}$$

42

(Total for Question 5 is 2 marks)

18 Daniel bakes 420 cakes.

He bakes only vanilla cakes, banana cakes, lemon cakes and chocolate cakes.

$\frac{2}{7}$ of the cakes are vanilla cakes.

35% of the cakes are banana cakes.

The ratio of the number of lemon cakes to the number of chocolate cakes is 4:5

Work out the number of lemon cakes Daniel bakes.

18 Daniel bakes 420 cakes.

He bakes only vanilla cakes, banana cakes, lemon cakes and chocolate cakes.

$\frac{2}{7}$ of the cakes are vanilla cakes.

35% of the cakes are banana cakes.

The ratio of the number of lemon cakes to the number of chocolate cakes is 4:5

Work out the number of lemon cakes Daniel bakes.

Vanilla

$$\frac{2}{7} \text{ of } 420 = 120$$

lemon and choc

$$420 - 120 - 147 = 153$$

$$153 \quad \left(\begin{array}{l} L \\ 4 \end{array} \right) : \left(\begin{array}{l} C \\ 5 \end{array} \right)$$

banana

$$35\% \text{ of } 420 = 147$$

$$\begin{array}{l} \div 9 \left\{ \begin{array}{l} 153 = 9 \text{ parts} \\ 17 = 1 \text{ part} \end{array} \right. \div 9 \\ \times 4 \left\{ \begin{array}{l} 68 \quad 4 \text{ parts} \\ \end{array} \right. \times 4 \end{array}$$

68 ✓

There is a special offer.

T-shirts £5.80 each.
Buy 30 or more T-shirts.
Get 10% off the total cost.

(b) Work out the actual cost of buying 35 T-shirts using the special offer.

£.....

(4)

(Total for Question 16 is 5 marks)

There is a special offer.

T-shirts £5.80 each.

Buy 30 or more T-shirts.
Get 10% off the total cost.

(b) Work out the actual cost of buying 35 T-shirts using the special offer.

$$\begin{array}{r}
 \text{£}5.80 \times 35 \\
 \begin{array}{r}
 580 \\
 \times 35 \\
 \hline
 2900 \\
 17400 \\
 \hline
 20300
 \end{array} \\
 20300 = \text{£}203
 \end{array}$$

$$10\% \text{ of } \text{£}203 = \text{£}20.30$$

$$\begin{array}{r}
 \text{£} 203.00 \\
 - \text{£} 20.30 \\
 \hline
 182.70
 \end{array}$$

$$\begin{array}{r}
 \text{£} 182.70 \\
 \hline
 (4) \checkmark
 \end{array}$$

(Total for Question 16 is 5 marks)

15 Mr Page uses oil to heat his home.

At the beginning of November there were 1000 litres of oil in his oil tank.

Mr Page bought enough oil to fill the tank completely.

He paid 50p per litre for this oil.

He paid a total amount of £750

At the end of February Mr Page had 600 litres of oil in the tank.

He bought enough oil to fill the tank completely.

The cost of oil had increased by 4%.

Work out the total amount Mr Page paid for the oil he bought in February.

£.....

(Total for Question 15 is 5 marks)

15 Mr Page uses oil to heat his home.

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At the end of February Mr Page had 600 litres of oil in the tank.

He bought enough oil to fill the tank completely.

The cost of oil had increased by 4%.

Work out the total amount Mr Page paid for the oil he bought in February.

Nov ...  = 1000 L

fills it \rightarrow 50p per litre spend £750

$$= \frac{£750}{£0.50} \text{ or } \frac{75000}{50p} = \underline{\underline{1500L}}$$

when its full = 2500L

Feb 600L left

$$\text{used } 2500L - 600L = 1900L$$

50p Litre = Now

4% of 50p = 2p

now 52p

Spends

$$£0.52 \times 1900L$$

$$= \underline{\underline{£988}}$$

£ 988

(Total for Question 15 is 5 marks)

15 Work out 15% of 160 grams.

R7

..... grams

(Total for Question 15 is 2 marks)

15 Work out 15% of 160 grams.

R7

$$10\% = 16 \text{ grams}$$

$$5\% = 8 \text{ grams}$$

$$24 \text{ grams}$$

..... 24 grams

(Total for Question 15 is 2 marks)

23 Raya buys a van for £8500 plus VAT at 20%

R7 Raya pays a deposit for the van.

N13 She then pays the rest of the cost in 12 equal payments of £531.25 each month.

R13 Find the ratio of the deposit Raya pays to the total of the 12 equal payments.
Give your answer in its simplest form.

.....
(Total for Question 23 is 5 marks)

Raya buys a van for £8500 plus VAT at 20%

R7 Raya pays a deposit for the van.

N13 She then pays the rest of the cost in 12 equal payments of £531.25 each month.

R13 Find the ratio of the deposit Raya pays to the total of the 12 equal payments.

Give your answer in its simplest form.

Van cost	}	<u>12 payments</u>	}	<u>deposit</u>	
£8500 + 20%		£531.25 × 12		10200	dep : 17
+ £1700		£6375 ✓		- 6375	3825 : 6375
= £10200			3825		

3:5

(Total for Question is 5 marks)

22 A bonus of £2100 is shared by 10 people who work for a company.
40% of the bonus is shared equally between 3 managers.

R6 The rest of the bonus is shared equally between 7 salesmen.

R7

R8 One of the salesmen says,

“If the bonus is shared equally between all 10 people I will get 25% more money.”

Is the salesman correct?

You must show how you get your answer.

(Total for Question 22 is 5 marks)

22 A bonus of £2100 is shared by 10 people who work for a company.
40% of the bonus is shared equally between 3 managers.

R6 The rest of the bonus is shared equally between 7 salesmen.

R7
R8 One of the salesmen says,

“If the bonus is shared equally between all 10 people I will get 25% more money.”

Is the salesman correct?

You must show how you get your answer.

Handwritten solution:

40% of £2100
10% = £210
40% = £840

60%
£2100 - 840
840
1260 → 7 salesmen

180 ... each salesman gets £180

7 | 1260

if shared equally ... 10% of £2100 = £210 ✓

25% ($\frac{1}{4}$) of £180 ... £45

if he got 25% more ... £180 + £45 = £225

No he is not correct as £225 < £210

(Total for Question is 5 marks)

- 11** Adam gets a bonus of 30% of £80
Katy gets a bonus of £28

R7 Work out the difference between the bonus Adam gets and the bonus Katy gets.

£.....

(Total for Question 11 is 3 marks)

- 11 Adam gets a bonus of 30% of £80
Katy gets a bonus of £28

R7 Work out the difference between the bonus Adam gets and the bonus Katy gets.

$$\begin{array}{l} \underline{\text{Adam}} \\ 30\% \text{ of } £80 \\ = £24 \end{array} \left. \begin{array}{l} \underline{\text{Katy}} \\ £28 \end{array} \right\}$$
$$£28 - £24$$
$$£ \quad \underline{4} \quad \checkmark$$

(Total for Question 11 is 3 marks)

18 Trevor buys a boat.
The cost of the boat is £14 200 plus VAT at 20%

R7

N13 Trevor pays a deposit of £5000
He pays the rest of the cost in 10 equal payments.

Work out the amount of each of the 10 payments.

£.....

(Total for Question 18 is 4 marks)

18 Trevor buys a boat.
The cost of the boat is £14200 plus VAT at 20%

R7
N13 Trevor pays a deposit of £5000
He pays the rest of the cost in 10 equal payments.

Work out the amount of each of the 10 payments.

$$£14,200 + 20\%$$

$$20\% \text{ of } £14200 \\ = £2840$$

Total cost

$$= 14200 + 2840$$

$$= £17040$$

deposit of £5000

$$\text{Remainder} = £12040$$

$$\frac{\text{1 payment}}{12040} \\ \frac{12040}{10} = £1204$$

$$£ \dots £1204 \checkmark$$

(Total for Question 18 is 4 marks)

AQA

6 500 people are asked if they drink coffee.

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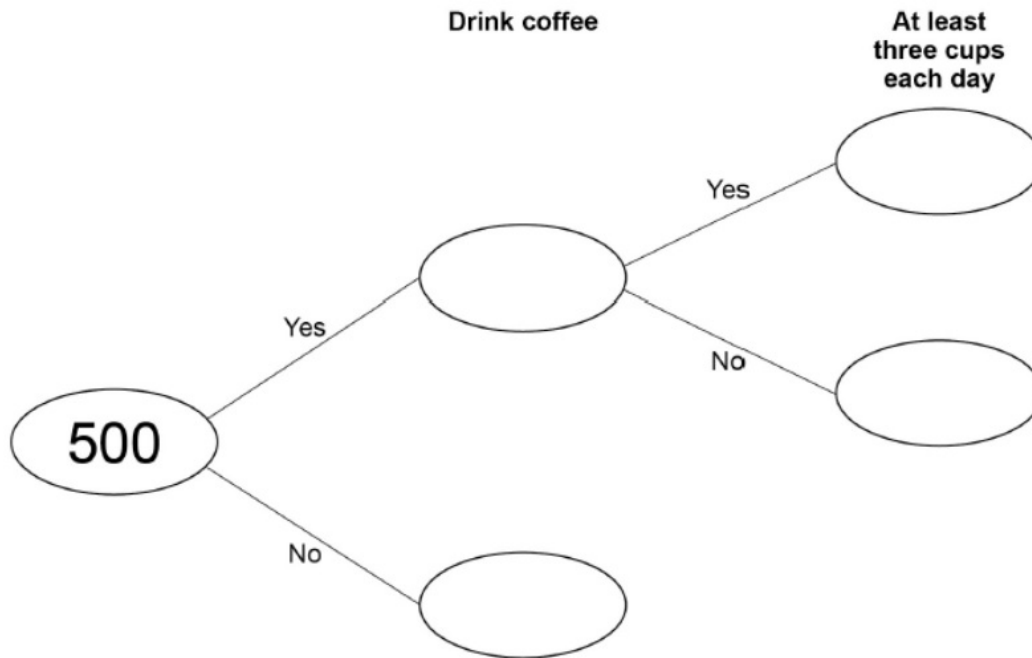
$\frac{9}{10}$ say Yes.

20% of the people who say Yes drink at least three cups each day.

6 (a) Complete the frequency tree.

[4 marks]

R4a
R7
P30



6 500 people are asked if they drink coffee.

Video created by W Neill

$\frac{9}{10}$ say Yes.

20% of the people who say Yes drink at least three cups each day.

$\frac{9}{10}$ of 500

$$500 \div 10 = 50$$

$$\frac{1}{10} = 50$$

[4 marks]

$$\frac{9}{10} = 450$$

20% of 450

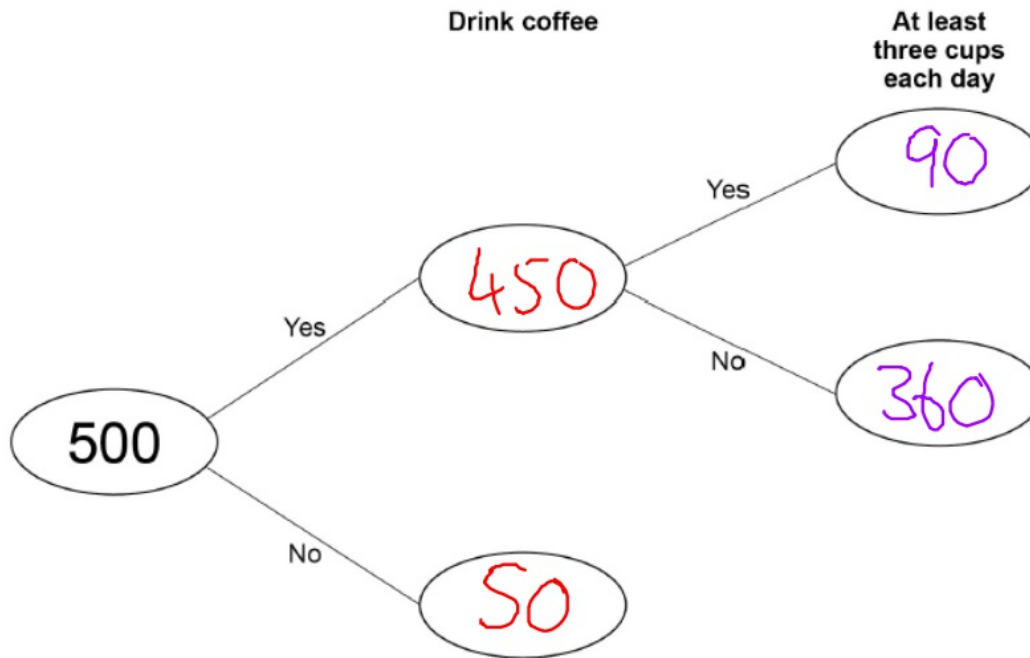
$$10\% = 45$$

$$20\% = 90$$

$$450 - 90 = 360$$

6 (a) Complete the frequency tree.

R4a
R7
P30



21 Billy wants to buy these tickets for a show.

N13 4 adult tickets at £15 each

R7 2 child tickets at £10 each

A 10% booking fee is added to the ticket price.

3% is then added for paying by credit card.

Work out the **total** charge for these tickets when paying by credit card.

[5 marks]

Answer £ _____

Billy wants to buy these tickets for a show.

N13

4 adult tickets at £15 each \times £60

R7

2 child tickets at £10 each £20

$$\begin{array}{r} 880 \\ \times 23 \\ \hline 264 \\ 1760 \\ \hline 2024 \end{array}$$

A 10% booking fee is added to the ticket price.

3% is then added for paying by credit card.

Work out the **total** charge for these tickets when paying by credit card.

[5 marks]

$$\text{tickets} = £80$$

$$+ 10\% = £80 + £8$$

$$= £88$$

$$3\% \text{ of } £88$$

$$1\% = £0.88$$

$$\times 3 \rightarrow 3\% = £2.64$$

$$£88 + 2.64$$

Answer £ £90.64 ✓

12 (c) The table shows Lee's costs.

Video created by W Neill

R7

Ingredients	15% of sales
Fuel	£7 per day

Work out his total profit for the five days.

[5 marks]

Answer £ _____

12 (c) The table shows Lee's costs.

Video created by W Neill

R7

Ingredients	15% of sales
Fuel	£7 per day

Work out his total profit for the five days.

[5 marks]

$$\text{Sales} = £660$$

$$\text{Ingredients} = 15\% \text{ of } £660 = £99$$

$$\text{fuel} = 5 \times £7 = £35$$

$$\text{Costs} = 99 + 35 = £134$$

$$\text{Profit} = 660 - 134$$

Answer £

526

18 Ellen works for a company that sells cars.

Video created by W Neill

Her **monthly** pay is

M13
R7

- a salary of £1470
- 28% of the total **profit** the company makes from her sales
- a £250 bonus if she sells at least 15 cars.

The table shows information about the cars she sold last year.

Total cost to the company	Total income for the company	Number of months when she sold at least 15 cars
£464 500	£538 000	3

Was Ellen's total pay for the **year** more than £40 000?

You **must** show your working.

[6 marks]

Answer _____

18 Ellen works for a company that sells cars.

Video created by W Neill

Her monthly pay is

M13
R7

- a salary of £1470
- 28% of the total profit the company makes from her sales
- a £250 bonus if she sells at least 15 cars.

$$\text{Salary} = £1470 \times 12 = £17640$$

The table shows information about the cars she sold last year.

Total cost to the company	Total income for the company	Number of months when she sold at least 15 cars
£464 500	£538 000	3

28% of profit

$$28\% \text{ of } 73500 = £20580$$

Was Ellen's total pay for the year more than £40 000?

You **must** show your working.

[6 marks]

$$\text{Bonus} = 3 \times £250 = £750$$

$$= £38970 \checkmark$$

Answer No, $38970 < 40,000$

15

In a test,

R7

Section A has 80 marks

Section B has 120 marks.

Riya scores

55% in Section A

70% in Section B.

To pass, Riya needs to score 65% of the **total** marks.

Does she pass?

You **must** show your working.

[4 marks]

Video created by W Neill

Answer _____

15

In a test,

Video created by W Neill

R7

Section A has 80 marks

Section B has 120 marks.

Total 200 marks

Riya scores

55% in Section A

70% in Section B.

Marks?

Section A \rightarrow 55% of 80 marks
 $= 44$ marks

Section B $=$ 70% of 120 marks
 $= 84$ marks

To pass, Riya needs to score 65% of the total marks.

Does she pass?

You **must** show your working.

[4 marks]

Total $= 44 + 84 = 128$ marks

65% of 200 marks

130 marks needed to pass, so no she doesn't

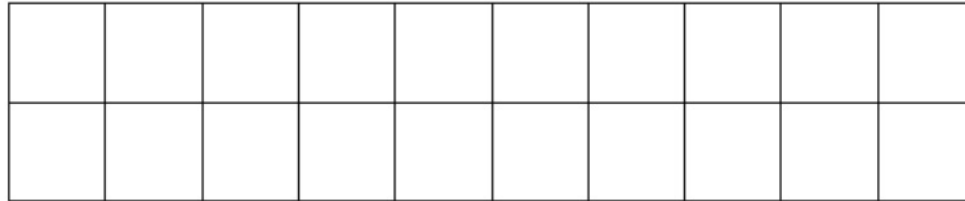
$130 > 128$

or
 $\frac{128}{200} = 64\%$
So no
She doesn't
Answer 64% < 65%

5 (a) Shade $\frac{2}{5}$ of this grid.

N35

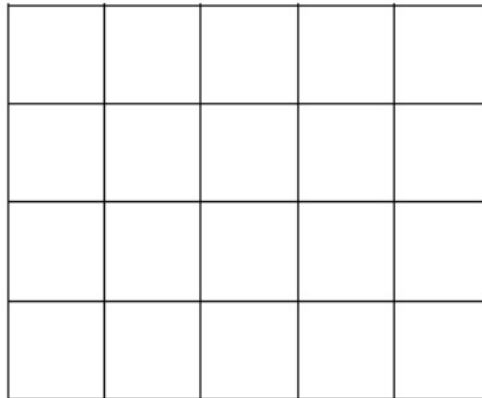
[1 mark]



5 (b) Shade 10% of this grid.

R7

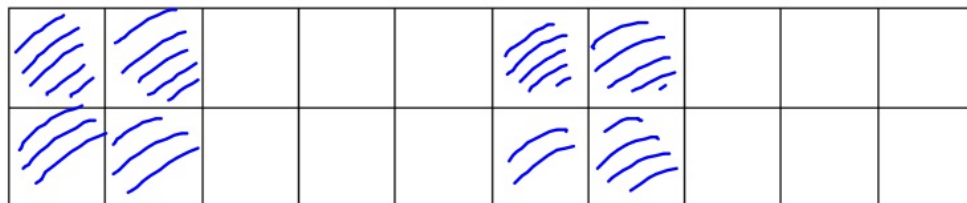
[1 mark]



5 (a) Shade $\frac{2}{5}$ of this grid.

N35

[1 mark]

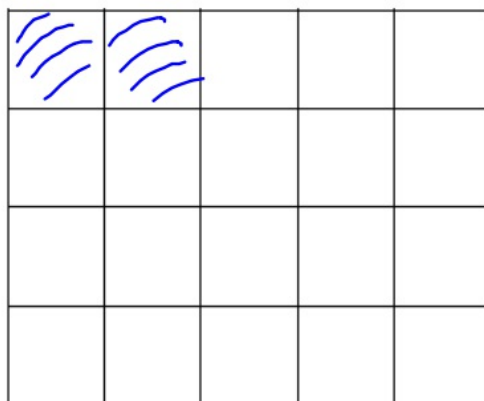


any 8

5 (b) Shade 10% of this grid.

R7

[1 mark]



10% of 20
= 2

26	Investment A	Save £150 per month for 2 years. 2.5% interest is added to the total amount saved.
R7 R11	Investment B	Invest £3500 Compound interest is added at 3% per year.

After 2 years, how much **more** is investment B worth than investment A?

[4 marks]

R7
R11

- Investment A Save £150 per month for 2 years.
2.5% interest is added to the total amount saved.
- Investment B Invest £3500
Compound interest is added at 3% per year.

After 2 years, how much **more** is investment B worth than investment A?

[4 marks]

$$\begin{aligned} A \quad & \text{£}150 \times 24 \text{ months} \\ & = \text{£}3600 \\ & 2.5\% \text{ of } 3600 = \text{£}90 \\ & = 3600 + 90 = \text{£}3690 \end{aligned}$$

$$\begin{aligned} B \dots & 3500 \times 1.03^2 \\ & = \text{£}3713.15 \\ \hline \text{Ans } & \text{£}3713.15 - 3690 \\ & = \text{£}23.15 \checkmark \end{aligned}$$

- 13** A charity sends an appeal letter to 3000 people.
The letter asks for a donation of money.
Here is some information about the last appeal letter the charity sent out.

$\frac{1}{2}$ of the people who were sent the letter made a donation.
The average donation was £8.60
$\frac{1}{3}$ of the people who made a donation filled in a tax form. The government adds 25% to the donations of these people.

- 13 (a)** Using this information,
work out the amount the charity can expect to receive from this appeal.

R4a

R7

[6 marks]

Answer £ _____

13 A charity sends an appeal letter to 3000 people.
 The letter asks for a donation of money.
 Here is some information about the last appeal letter the charity sent out.

$\frac{1}{2}$ of the people who were sent the letter made a donation.
The average donation was £8.60
$\frac{1}{3}$ of the people who made a donation filled in a tax form.
The government adds 25% to the donations of these people.

$3000 \div 2 = 1500$ people

$1500 \times \pounds 8.60 = \pounds 12900$

$\frac{1}{3}$ of 1500 = 500 people

25% of £8.60 = £2.15

£1075

[6 marks]

13 (a) Using this information,
 work out the amount the charity can expect to receive from this appeal.

R4a
 R7

Total expected = $12900 + 1075$

Answer £ 13975

9 (c) The company sells three houses.

R7

The prices are £185 000, £239 000 and £136 000

The company earns 2% commission on each house.

In total, how much commission does the company earn on these three houses?

[3 marks]

Answer £ _____

9 (c) The company sells three houses.

R7

The prices are £185 000, £239 000 and £136 000

The company earns 2% commission on each house.

In total, how much commission does the company earn on these three houses?

[3 marks]

$$\begin{array}{l} 2\% \text{ of } \pounds 185,000 \\ \pounds 3700 \end{array} \left. \begin{array}{l} 2\% \text{ of } \pounds 239000 \\ \pounds 4780 \end{array} \right\} \begin{array}{l} 2\% \text{ of } 136000 \\ \pounds 2720 \end{array}$$

Answer £ £ 11200 ✓

25

Doug owes an amount of £600

He wants to pay back this amount in five months.

R7

R9a

R11

He says,

“Each month, I will pay back 20% of the amount I still owe.”

Show working to check if his method is correct.

[3 marks]

25

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He wants to pay back this amount in five months.

R7

R9a

R11

He says,

“Each month, I will pay back 20% of the amount I still owe.”

Show working to check if his method is correct.

[3 marks]

$$\begin{array}{r}
 \text{£600} \\
 \text{1st 20\%} \\
 \underline{-120} \\
 \text{=£480}
 \end{array}
 \qquad
 \begin{array}{r}
 \text{2nd month} \\
 \underline{\hspace{1cm}} \\
 \text{=}
 \end{array}
 \qquad
 \begin{array}{r}
 \text{£600} \times 0.8^5 = \text{£196} \\
 \text{So won't} \\
 \text{have it paid.}
 \end{array}$$

16 The value of y is 20% more than the value of x .

R7

Circle the ratio $x : y$

[1 mark]

R13

5 : 6

6 : 5

4 : 5

5 : 4

16 The value of y is 20% more than the value of x .

20% of 5 = 1

R7 Circle the ratio $x : y$

[1 mark]

R13

5 : 6

6 : 5

4 : 5

5 : 4

20% more

$$x = 100$$

$$y = 120$$

$$x = y$$

$$100 = 120$$

$$10 : 12$$

$$5 : 6$$