

N13 Money Questions

OCR

11 Chris is organising a wedding.

- (a)** The wedding breakfast is in a hotel.
It costs £400 to hire the room plus £69.95 for each guest.
He can spend a maximum of £5500.

What is the maximum number of guests he can invite to the breakfast?

(a) **[3]**

- (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]**

11 Chris is organising a wedding.

- (a) The wedding breakfast is in a hotel.
It costs £400 to hire the room plus £69.95 for each guest.
He can spend a maximum of £5500.

What is the maximum number of guests he can invite to the breakfast?

$$£5500 - £400 = £5100 \text{ left}$$

$$\frac{5100}{69.95} = 72.9$$

(a) 72 [3]

- (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]

5 George is going to make biscuits for a party.

He buys:

- two 250 g packs of butter at £1.30 per pack
- one 1.5 kg bag of flour at £0.80 per bag
- one 500 g bag of sugar at £0.99 per bag.

(a) (i) How much does he spend altogether?

(a)(i) £ [1]

(ii) He pays with a £10 note.

How much change should he receive?

(ii) £ [1]

5 George is going to make biscuits for a party.

He buys:

- two 250 g packs of butter at £1.30 per pack
- one 1.5 kg bag of flour at £0.80 per bag
- one 500 g bag of sugar at £0.99 per bag.

(a) (i) How much does he spend altogether?

$$\begin{array}{r} 2.60 \\ 0.80 \\ 0.99 \\ \hline 4.39 \end{array}$$

(a)(i) £ 4.39 [1]

(ii) He pays with a £10 note.

How much change should he receive?

$$10 - 4.39$$

(ii) £ 5.61 [1]

(b) Four friends buy cinema tickets using this offer.

Cinema tickets
Buy 3 tickets and get a ticket **free**

They **each** pay £6.45.

How much does a ticket cost?

(b) £ **[3]**

(b) Four friends buy cinema tickets using this offer.

Cinema tickets
Buy 3 tickets and get a ticket free

They each pay £6.45.

How much does a ticket cost?

$$\begin{array}{r}
 8.60 \\
 3 \overline{) 25.80} \\
 \hline
 \end{array}$$

Total paid = £6.45 x 4
= 6 x 4 = £24
45p x 4 = £1.80 } £25.80

3 tickets
↑

(b) £ 8.60 ✓ [3]

- 7 Hardeep buys 11 identical shirts and 24 identical ties for £403.51.
The cost of a shirt is £15.65.

Find the cost of a tie.

£ [4]

- 7 Hardeep buys 11 identical shirts and 24 identical ties for £403.51.
The cost of a shirt is £15.65.

Find the cost of a tie.

Shirts

$$£15.65 \times 11 = £172.15$$

Ties

$$£403.51 - £172.15$$

$$= £231.36 = 24 \text{ ties}$$

$$£9.64 = 1 \text{ tie}$$

$$9.64 \checkmark$$

£ [4]

10 Reuben hires a car.
It costs £150, **plus** 85p for each mile he travels.

When Reuben hires the car, its mileage is 27 612 miles.
When Reuben returns the car, its mileage is 28 361 miles.

How much did Reuben pay to hire the car?

£ [4]

10 Reuben hires a car.
It costs £150, plus 85p for each mile he travels.

N13

When Reuben hires the car, its mileage is 27 612 miles.
When Reuben returns the car, its mileage is 28 361 miles.

How much did Reuben pay to hire the car?

How much he used ...

$$\begin{array}{r}
 28\,361 \\
 - 27\,612 \\
 \hline
 749 \text{ miles}
 \end{array}$$

$$\begin{array}{r}
 85p \times 749 \text{ miles} \\
 63665p \\
 = £636.65 \\
 + £150 \\
 \hline
 \end{array}$$

£ £786.65 [4]

17 James works from 2pm until 8.30pm on both Thursday and Friday.
He is paid £12 per hour.

N13

On Saturday he is paid $1\frac{1}{2}$ times this hourly pay.

He works for 5 hours on Saturday.

Calculate how much James earns **in total** for these three days.

£ **[6]**

17 James works from 2pm until 8.30pm on both Thursday and Friday.
He is paid £12 per hour.

N13

On Saturday he is paid $1\frac{1}{2}$ times this hourly pay.

He works for 5 hours on Saturday.

Calculate how much James earns **in total** for these three days.

Thursday

2pm \rightarrow 8.30pm

$$= 6\frac{1}{2}\text{hrs} \times \text{£}12$$

$$= \text{£}78$$

Fri

£78

Sat

$$\text{£}12 \times 1\frac{1}{2}$$

$$= \text{£}18 \times 5\text{hrs}$$

$$= \text{£}90$$

£ [6]

£246 ✓

$$\begin{array}{r} \text{Total} \\ \hline \text{£}90 \\ + 78 \\ + 78 \\ \hline \end{array}$$

8 A water company charged the following in 2017.

N13

£2.00 for each m^3 of water used
plus
a fixed charge of £45

In 2017 Jenny used 110m^3 of water.

For the 12 months of 2017 she paid £20 per month to the water company.

How much more money does Jenny need to pay to the water company?

£ [6]

8 A water company charged the following in 2017.

N13

£2.00 for each m^3 of water used
plus
a fixed charge of £45

She has paid

$$£20 \times 12$$

$$= £240$$

In 2017 Jenny used 110m^3 of water.

For the 12 months of 2017 she paid £20 per month to the water company.

How much more money does Jenny need to pay to the water company?

$$110\text{m}^3 \times £2$$

$$= £220 \checkmark + £45$$

$$\text{Total Bill} = £265$$

Still owe

$$\begin{array}{r} \text{Bill} = £265 \\ - 240 \\ \hline \end{array}$$

$$£225 \checkmark$$

£ [6]

8 This table shows the ticket price for each person to visit a zoo in winter.

Type of ticket	Ticket price
Adult (aged 18 and over)	£18
Child (aged 3 to 17)	£14
Child (aged below 3)	Free

(a) A family of two adults, one child aged 8 and one child aged 1 visit the zoo in winter.

N13 What is the total cost of the tickets?

(a) £ [2]

8 This table shows the ticket price for each person to visit a zoo in winter.

Type of ticket	Ticket price
Adult (aged 18 and over)	£18
Child (aged 3 to 17)	£14
Child (aged below 3)	Free

(a) A family of two adults, one child aged 8 and one child aged 1 visit the zoo in winter.

N13 What is the total cost of the tickets?

$$\begin{array}{r}
 2 \text{ adults } \dots 2 \times \text{£}18 = 36 \\
 1 \text{ child } \dots 1 \times \text{£}14 \quad + 14 \\
 \hline
 50
 \end{array}$$

(a) £ 50 [2]

Edexcel

Video created by W Neill

8 Joanne wants to buy a dishwasher.

The dishwasher costs £372

Joanne will pay a deposit of £36

She will then pay the rest of the cost in 4 equal monthly payments.

How much is each monthly payment?

£.....

(Total for Question 8 is 2 marks)

Video created by W Neill

8 Joanne wants to buy a dishwasher.

The dishwasher costs £372

Joanne will pay a deposit of £36

She will then pay the rest of the cost in 4 equal monthly payments.

How much is each monthly payment?

$$\begin{aligned} \text{£}372 - \text{£}36 &= \text{£}336 \div 4 \\ &= \text{£}84 \end{aligned}$$

£ 84

(Total for Question 8 is 2 marks)

9 Here are some prices in a cafe.

Prices	
Tea	£1.60
Coffee	£2.25
Milk	95p
Toast	£1.85
Bacon sandwich	£3.30
Egg sandwich	£2.95

Jack orders

- 2 teas
- 1 coffee
- 1 toast
- 1 bacon sandwich

Jack only has a £10 note.

Does he have enough money to pay the bill?
You must show how you get your answer.

(Total for Question 9 is 3 marks)

9 Here are some prices in a cafe.

Prices	
Tea	£1.60
Coffee	£2.25
Milk	95p
Toast	£1.85
Bacon sandwich	£3.30
Egg sandwich	£2.95

$$\begin{array}{r}
 \text{Tea} \quad 3.20 \\
 \text{Coffee} \quad 2.25 \\
 \text{Toast} \quad 1.85 \\
 \text{bacon} \quad + 3.30 \\
 \hline
 \text{£}10.60
 \end{array}$$

Jack orders

2 teas ✓
 1 coffee ✓
 1 toast
 1 bacon sandwich

Jack only has a £10 note.

Does he have enough money to pay the bill?
 You must show how you get your answer.

No, he does not have
 enough.

(Total for Question 9 is 3 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.

.....
(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.

80% of £180

10% = £18

20% = £36

→ 100% - 20% = 80%

$$\begin{array}{r} 7 \ 1 \\ 180 \\ - 36 \\ \hline 144 \end{array}$$

→ School

$$\begin{array}{r} 24 \\ 3 \overline{) 72} \\ \underline{60} \\ 12 \\ \underline{12} \\ 0 \end{array}$$

24

£1.50 = 1 student
 £3 = 2 students
 £36 = 24 students
 Students pay £36

$$\begin{array}{r} 36 \\ \hline 1.5 \\ \hline 72 \\ \hline 3 \end{array}$$

(Total for Question 18 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)

12 Ria buys

- N13** 2 packets of biscuits costing £1.40 each
2 cakes costing £1.50 each
3 bottles of orange juice costing £1.10 each

Ria pays with a £10 note.

Work out how much change Ria should get.

.....
(Total for Question 12 is 3 marks)

12 Ria buys

- N13** 2 packets of biscuits costing £1.40 each =
 2 cakes costing £1.50 each =
 3 bottles of orange juice costing £1.10 each =

$$\begin{array}{r}
 2.80 \\
 3.00 \\
 3.30 \\
 \hline
 \pounds 9.10
 \end{array}$$

Ria pays with a £10 note.

Work out how much change Ria should get.

$$\pounds 10 - \pounds 9.10 = \text{change}$$

$$\pounds 0.90 \text{ or } 90\text{p}$$

(Total for Question 12 is 3 marks)

14 Tim works for a company.
His normal rate of pay is £10 per hour.

N13

On Friday Tim worked 4 hours overtime.

His overtime rate of pay is $1\frac{1}{2}$ times his normal rate of pay.

Work out how much money Tim was paid for his overtime on Friday.

£

(Total for Question 14 is 3 marks)

14 Abi is going to buy ingredients to make 65 hot chocolate drinks.

She needs 12 g of chocolate powder and 5 marshmallows to make each drink.

Abi can buy

chocolate powder in 250 g jars at £2.99 per jar

R26 marshmallows in bags of 120 marshmallows at £1.45 per bag

N13 work out the total cost of the chocolate powder and the marshmallows she needs to buy.

£.....

(Total for Question 14 is 4 marks)

14 Abi is going to buy ingredients to make 65 hot chocolate drinks.

She needs 12g of chocolate powder and 5 marshmallows to make each drink.

Abi can buy

chocolate powder in 250g jars at £2.99 per jar

marshmallows in bags of 120 marshmallows at £1.45 per bag

R26

N13

work out the total cost of the chocolate powder and the marshmallows she needs to buy.

<p><u>Choc Powder</u></p> <p>12g = 1 drink $\left. \begin{array}{l} \times 65 \\ \downarrow \end{array} \right\} 780g = 65 \text{ drinks}$ $\times 65$</p> <p>250 250 250 250</p> <p>4 x £2.99 = £11.96</p>	<p><u>Marsh</u></p> <p>5m = 1 drink $\left. \begin{array}{l} \times 65 \\ \downarrow \end{array} \right\} 325m = 65 \text{ drinks}$ $\times 65$</p> <p>120 240 360</p> <p>3 bag x £1.45 = £4.35</p> <p>Total $11.96 + 4.35$ = £ 16.31 ✓</p>
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(Total for Question 14 is 4 marks)

7 Fahima buys

2 packets of bread rolls costing £1.50 for each packet

1 bottle of ketchup costing £1.60

3 packets of sausages

Fahima pays with a £10 note.

She gets 30p change.

Fahima works out that one packet of sausages costs £2.30

Is Fahima right?

You must show how you get your answer.

7 Fahima buys

- 2 packets of bread rolls costing £1.50 for each packet
- 1 bottle of ketchup costing £1.60
- 3 packets of sausages

Fahima pays with a £10 note.
She gets 30p change.

Fahima works out that one packet of sausages costs £2.30

Is Fahima right?

You must show how you get your answer.

Sausages

$$£2.30 \times 3 = £6.90$$

6.90

1.60

3.00

11.50 is greater
than £10 so no
she is not correct

Video created by W Neill

- 9 Sean works for a company.
His normal rate of pay is £12 per hour.

When Sean works more than 8 hours a day, he is paid overtime for each hour he works more than 8 hours.

Sean's rate of overtime pay per hour is $1\frac{1}{4}$ times his normal rate of pay per hour.

On Monday Sean worked for 10 hours.

Work out the total amount of money Sean earned on Monday.

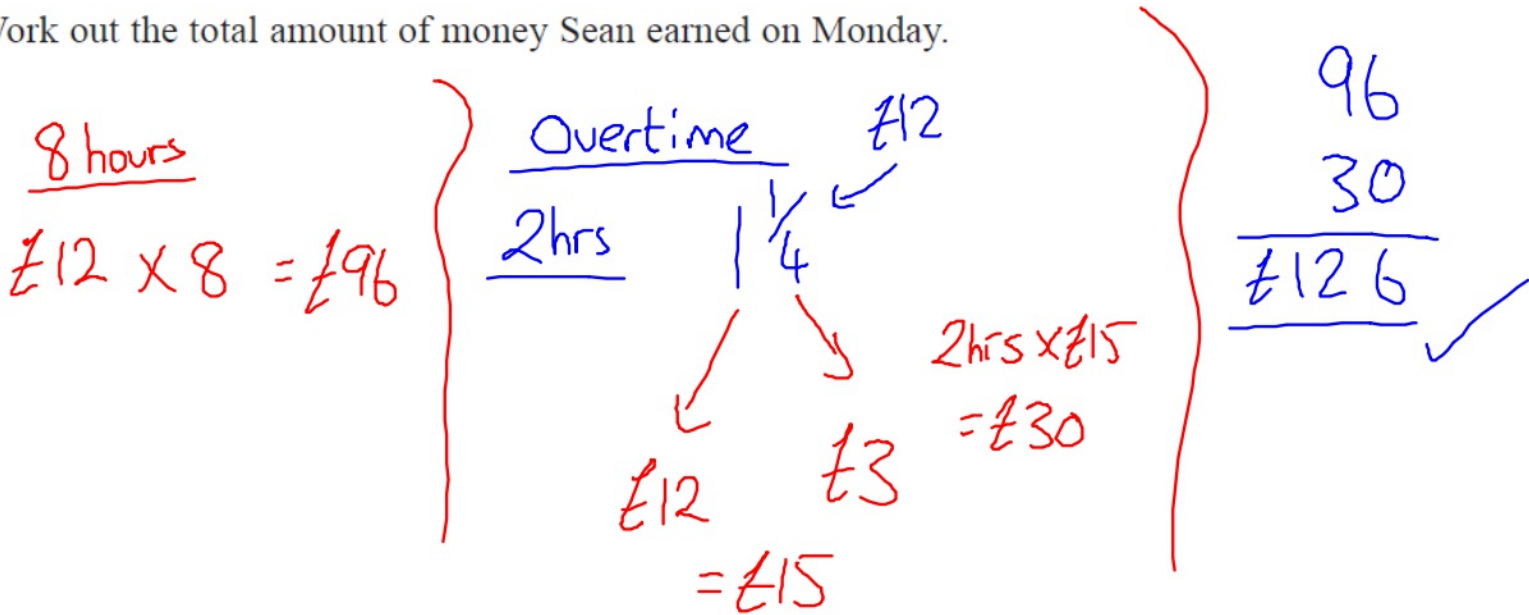
9 Sean works for a company.
His normal rate of pay is £12 per hour.

When Sean works more than 8 hours a day, he is paid overtime for each hour he works more than 8 hours.

Sean's rate of overtime pay per hour is $1\frac{1}{4}$ times his normal rate of pay per hour.

On Monday Sean worked for 10 hours.

Work out the total amount of money Sean earned on Monday.



Video created by W Neill

6 There are 495 coins in a bottle.

$\frac{1}{3}$ of the coins are £1 coins.

124 of the coins are 50p coins.

The rest of the coins are 20p coins.

Work out the total value of the 495 coins.

£.....

(Total for Question 6 is 4 marks)

6 There are 495 coins in a bottle.

$\frac{1}{3}$ of the coins are £1 coins.

124 of the coins are 50p coins.

The rest of the coins are 20p coins.

Work out the total value of the 495 coins.

$$\begin{array}{l}
 \underline{\text{£1}} \\
 \frac{1}{3} \text{ of } 495 = 165 \text{ coins} \\
 \text{£165}
 \end{array}
 \left.
 \begin{array}{l}
 \text{50p} \\
 124 \times \text{£}0.50 \\
 \text{£62}
 \end{array}
 \right\}
 \begin{array}{l}
 \text{Rest} \\
 495 - 165 - 124 = 206 \\
 206 \times \text{£}0.20 \\
 = \text{£}41.20
 \end{array}
 \left.
 \begin{array}{l}
 \text{£165} \\
 \text{£62} \\
 \text{£41.20}
 \end{array}
 \right\}
 \begin{array}{l}
 \text{£}268.20 \checkmark
 \end{array}$$

(Total for Question 6 is 4 marks)

13 Ellie makes hats.

She makes at least 17 hats per hour.

She is paid 46p for each hat she makes.

Reaze is a waiter.

He works 35 hours and is paid a total of £266

Show that Ellie's hourly rate of pay is more than Reaze's hourly rate of pay.

(Total for Question 13 is 3 marks)

13 Ellie makes hats.

She makes at least 17 hats per hour.

She is paid 46p for each hat she makes.

Reaze is a waiter.

He works 35 hours and is paid a total of £266

Show that Ellie's hourly rate of pay is more than Reaze's hourly rate of pay.

Created by W Neill

Ellie

$$17 \times £0.46$$

$$= £7.82$$

Reaze

$$£266 \div 35 = £7.60$$

$$£7.82 > £7.60$$

Ellie earns more.

(Total for Question 13 is 3 marks)

Created by W Neill

17 Emily buys a pack of 12 bottles of water.
The pack costs £5.64

Emily sells all 12 bottles for 50p each.

Work out Emily's percentage profit.
Give your answer correct to 1 decimal place.

.....%

(Total for Question 17 is 3 marks)

17 Emily buys a pack of 12 bottles of water.
The pack costs £5.64

Created by W Neill

Emily sells all 12 bottles for 50p each.

Work out Emily's percentage profit.
Give your answer correct to 1 decimal place.

Spends £5.64

She makes $50p \times 12 = £6.00$

% profit

$$\frac{\text{diff}}{\text{original}} \times 100$$

$$\frac{36}{564} \times 100$$

..... 6.4 %

$$\frac{0.36}{5.64}$$

(Total for Question 17 is 3 marks)

4 The table gives information about the prices of cinema tickets.

Created by W Neill

Cinema ticket	Price
adult ticket	£7.80
child ticket	£5.80
family ticket (for 4 people)	£24.30

Mr Edwards and his 3 children go to the cinema.

It is cheaper for Mr Edwards to buy 1 family ticket rather than 4 separate tickets.

(a) How much cheaper?

.....
(3)

The film starts at 6.45 pm.

The film lasts 102 minutes.

(b) What time does the film finish?

4 The table gives information about the prices of cinema tickets.

Created by W Neill

Cinema ticket	Price
adult ticket	£7.80
child ticket	£5.80
family ticket (for 4 people)	£24.30

Single tickets

$$1 \times £7.80 = £7.80$$

$$3 \times £5.80 = \underline{£17.40}$$

$$£25.20$$

Mr Edwards and his 3 children go to the cinema.

It is cheaper for Mr Edwards to buy 1 family ticket rather than 4 separate tickets.

(a) How much cheaper?

$$\text{family ticket} = £24.30$$

$$£25.20 - £24.30$$

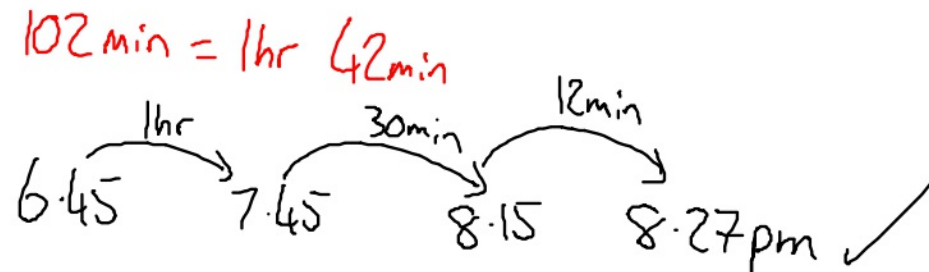
$$\underline{\quad 90p \text{ or } £0.90}$$

(3)

The film starts at 6.45 pm.

The film lasts 102 minutes.

(b) What time does the film finish?



11 Jack's driving school has two offers.

Offer 1

First driving lesson free

All other driving lessons normal price

Offer 2

All driving lessons

5% off the normal price

The normal price of a driving lesson is £24

Douglas is going to have 12 driving lessons.

Which is the cheaper offer for 12 driving lessons, Offer 1 or Offer 2?

You must show how you get your answer.

(Total for Question 11 is 3 marks)

11 Jack's driving school has two offers.

Created by W Neill

Offer 1

First driving lesson free
All other driving lessons normal price

Offer 2

All driving lessons
5% off the normal price

Offer 1
is cheaper ✓

The normal price of a driving lesson is £24

Douglas is going to have 12 driving lessons.

Which is the cheaper offer for 12 driving lessons, Offer 1 or Offer 2?

You must show how you get your answer.

$$\begin{array}{l} \text{free} + \overbrace{(11 \times £24)}^{\text{offer 1}} = £264 \\ = \end{array}$$

$$\overbrace{12 \times £24}^{\text{offer 2}} = £288$$

$$\begin{array}{l} \rightarrow 5\% \text{ of } £288 \\ = £14.40 \\ \text{Cost } £288 - 14.40 \\ = £273.60 \end{array}$$

(Total for Question 11 is 3 marks)

10 Tim and three friends go on holiday together for a week.

Video created by W Neill

N13 The 4 friends will share the costs of the holiday equally.

Here are the costs of the holiday.

£1280 for 4 return plane tickets

£640 for the villa

£220 for hire of a car for the week

Work out how much Tim has to pay for his share of the costs.

£

(Total for Question 10 is 3 marks)

10 Tim and three friends go on holiday together for a week.

Video created by W Neill

N13 The 4 friends will share the costs of the holiday equally.

Here are the costs of the holiday.

£1280 for 4 return plane tickets

£640 for the villa

£220 for hire of a car for the week

Work out how much Tim has to pay for his share of the costs.

$$\begin{array}{r} 1280 \\ 640 \\ \hline 2220 \\ \hline 2140 \end{array}$$

$$\begin{array}{r} 0535 \\ 4 \overline{) 2140} \end{array}$$

£ 535

(Total for Question 10 is 3 marks)

8 Neil buys 30 pens, 30 pencils, 30 rulers and 30 pencil cases.

N13

Price list	
pens	6 for 82p
pencils	15 for 45p
rulers	10 for £1.25
pencil cases	37p each

What is the total amount of money Neil spends?

£.....

(Total for Question 8 is 5 marks)

8 Neil buys 30 pens, 30 pencils, 30 rulers and 30 pencil cases.

N13

Price list	
pens	6 for 82p
pencils	15 for 45p
rulers	10 for £1.25
pencil cases	37p each

Pencil Cases

$$37p \times 30 = \text{£}11.10$$

What is the total amount of money Neil spends?

pens

$$x5 \left(\begin{array}{l} 6 \text{ for } 82p \\ 30 \end{array} \right) x5$$

£4.10

Pencils

$$\begin{array}{l} 15 \text{ for } 45p \\ 30 = 90p \end{array}$$

Rulers

$$\begin{array}{l} 10 \text{ for } \text{£}1.25 \\ 30 \text{ for } \text{£}3.75 \end{array}$$

£ 19.85 ✓

(Total for Question 8 is 5 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
 £8500 + 20%
 + £1700
 = £10200

12 payments
 £531.25 x 12
 £6375 ✓

deposit
 10200
 - 6375

 3825

dep : 17
 3825 : 6375

3 : 5

(Total for Question is 5 marks)

10 Bronwin works in a restaurant.

Video created by W Neill

The table gives her rates of pay.

N13

Day	Rate of pay
Monday to Friday	£8.40 per hour
Weekend	£11.20 per hour

Bronwin worked for a total of 20 hours last week.

She worked 8 of these 20 hours at the weekend.

Show that Bronwin was paid less than £200 last week.

(Total for Question 10 is 3 marks)

10 Bronwin works in a restaurant.

Video created by W Neill

The table gives her rates of pay.

N13

Day	Rate of pay
Monday to Friday	£8.40 per hour
Weekend	£11.20 per hour

Bronwin worked for a total of 20 hours last week.
She worked 8 of these 20 hours at the weekend.

Show that Bronwin was paid less than £200 last week.

20 hours

$$8 \times £11.20 \text{ (weekend)} \\ = £89.60$$

$$12 \times £8.40 \text{ (weekday)} \\ = £100.80$$

$$\text{Total} = £190.40$$

$$£190.40 < £200 \checkmark$$

(Total for Question 10 is 3 marks)

8 2 pens cost £2.38
5 folders cost £5.60

N13

R26 Ben wants to buy 20 pens and 20 folders.
He only has £50

Does Ben have enough money to buy 20 pens and 20 folders?
You must show how you get your answer.

(Total for Question 8 is 4 marks)

- 8 2 pens cost £2.38
5 folders cost £5.60

N13

- R26 Ben wants to buy 20 pens and 20 folders.
He only has £50

Does Ben have enough money to buy 20 pens and 20 folders?
You must show how you get your answer.

Pens ...

$$\begin{array}{r} 2 \text{ pens} = £2.38 \\ \times 10 \quad \downarrow \\ 20 \text{ pens} = £23.80 \\ \times 10 \quad \downarrow \\ \text{Total cost} = £23.80 \\ + £22.40 \\ \hline £46.20 \end{array}$$

Folders

$$\begin{array}{r} 5 \text{ folders} = £5.60 \\ \times 4 \quad \downarrow \\ 20 \text{ folders} = £22.40 \\ \times 4 \quad \downarrow \end{array}$$

Yes Ben has enough
as $£46.20 < £50$ ✓

(Total for Question 8 is 4 marks)

13 Annie sold

N13

45 books at £1.20 each
34 candles at £1.50 each
some calendars at 90p each

She got a total of £150

Work out how many calendars Annie sold.

.....
(Total for Question 13 is 4 marks)

13 Annie sold

N13

45 books at £1.20 each
 34 candles at £1.50 each
 some calendars at 90p each

→ £54 }
 → £51 } £105

She got a total of £150

Work out how many calendars Annie sold.

Calendars.... £150
 - 105

 £45

£45

 £0.90 = 50

50 ✓

(Total for Question 13 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.

£.....

(Total for Question 18 is 4 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.

$$£14,200 + 20\%$$

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

Total cost

$$= 14200 + 2840$$

$$= £17040$$

deposit of £5000

$$\text{Remainder} = £12040$$

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

£.....£1204 ✓

(Total for Question 18 is 4 marks)

AQA

8 Nadia has £5 to buy pencils and rulers.

Video created by W Neill

N13

Prices	
Pencils	8p each
Rulers	30p each

She says,

“I will buy 15 pencils.

Then I will buy as many rulers as possible.

With my change I will buy more pencils.”

How many pencils and how many rulers does she buy?

[6 marks]

Answer _____ pencils, _____ rulers

8

Nadia has £5 to buy pencils and rulers.

Video created by W Neill

N13

Prices	
Pencils	8p each
Rulers	30p each

£5

15 pencils = 15

$$\begin{array}{r} \times 8 \\ 120 \\ \hline \end{array} = £1.20$$

left for rulers = £5 - £1.20
= £3.80

She says,

"I will buy 15 pencils"

Then I will buy as many rulers as possible.

With my change I will buy more pencils."

How many pencils and how many rulers does she buy?

1 Ruler = 30p

10 Rulers = £3.00

11 Rulers = £3.30

12 Rulers = £3.60 ✓

~~13 " = £3.90~~

leaves her with 20p

2 more pencils
= 16p

15 + 2 ↘

Answer 17 pencils, 12 rulers ✓

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 ✓

9 Complete the bank statement.

[2 marks]

N13

Date	Description	Credit (£)	Debit (£)	Balance (£)
13/12/2016	Starting balance			212.48
14/12/2016	Council tax		128.39	_____
15/12/2016	Salary	856.21		_____

9 Complete the bank statement.

[2 marks]

N13

In

Out

Date	Description	Credit (£)	Debit (£)	Balance (£)
13/12/2016	Starting balance			212.48
14/12/2016	Council tax		128.39	<u>84.09</u>
15/12/2016	Salary	856.21		<u>940.30</u>

18 Ellen works for a company that sells cars.

Video created by W Neill

Her **monthly** pay is

- N13
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

N13
R7

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- 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.

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

28% of profit

$$28\% \text{ of } 73500 \\ = £20580$$

[6 marks]

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

$$= £38970 \checkmark$$

Answer No, 38970 < 40,000

8 A library book was due to be returned on 27 September.

N13 It was actually returned on 14 October.

There is a fine of 8p for every day the book is late.

Work out the total fine.

[3 marks]

Answer £ _____

8 A library book was due to be returned on 27 September.

N13 It was actually returned on 14 October.

There is a fine of 8p for every day the book is late.

Work out the total fine.

[3 marks]

Answer £ 1.36

30 Sept

27 28 29 30 1 → 14th
1st 2 3 14 days

17 days
X 8

136p

7

Eve has these coins.

Video created by W Neill

N13



Ola has these coins.



Eve gives **three** of her coins to Ola.

[3 marks]

Now, Ola has the same amount of money as Eve.

Which coins does Eve give to Ola?

Answer _____ , _____ , _____

7

Eve has these coins.

Video created by W Neill

N13



Ola has these coins.



£1.22 £3.97
 £2.75 middle
 £1.53

Eve gives three of her coins to Ola.

[3 marks]

Now, Ola has the same amount of money as Eve.

Which coins does Eve give to Ola?

£2.75

Answer £1 , 20p , 2p ✓

8

A dry cleaning shop has the following offers.

Video created by W Neill

N13

Suit



Normal price £12.50

1st suit normal price
2nd suit half price

Dress



Normal price £9.75

Three for the price of two

Work out the **total** price for 2 suits and 6 dresses.

[4 marks]

Answer £ _____

8

A dry cleaning shop has the following offers.

Video created by W Neill

N13

Suit



Normal price £12.50
1st suit normal price
2nd suit half price

Dress



Normal price £9.75
Three for the price of two

Suits

$$£12.50 + £6.25 = £18.75$$

Dresses

$$£9.75 \quad £9.75 \quad \text{free}$$
$$£9.75 \quad £9.75 \quad \text{free}$$

$$\times 4 = £39$$

$$39 + 18.75$$

Answer £ £57.75

Work out the total price for 2 suits and 6 dresses.

[4 marks]

20 In 2015, Han was paid £1350 per month.

N13 In 2016, he

R9a had a 2% increase in his monthly pay
worked 37.5 hours per week
worked for 47 weeks.

Work out Han's average pay **per hour** for 2016

[5 marks]

Answer £ _____

20

In 2015, Han was paid £1350 per month.

Video created by W Neill

In 2016, he

N13

had a 2% increase in his monthly pay ✓

R9a

worked 37.5 hours per week

worked for 47 weeks.

Work out Han's average pay per hour for 2016

$$\begin{array}{r}
 2\% \text{ of } \pounds 1350 \dots \text{new monthly pay} \\
 \pounds 27 \\
 \hline
 \pounds 1377 \dots \text{new monthly} \times 12
 \end{array}$$

$$\begin{array}{l}
 \text{Yearly } \dots 1377 \times 12 \\
 = \pounds 16524
 \end{array}$$

$$\begin{array}{l}
 \pounds 16524 \dots \text{year} \\
 \div 47 \rightarrow \pounds 351.57 \dots \text{week} \\
 \div 37.5 \rightarrow \pounds 9.375 \text{ per hr}
 \end{array}$$

[5 marks]

Answer £ 9.38

5 2.5 kg of carrots cost £1.70

R26 Work out the cost of 3.25 kg of carrots.

N13

[3 marks]

Answer £ _____

5 2.5 kg of carrots cost £1.70

R26 Work out the cost of 3.25 kg of carrots.

N13

[3 marks]

$$\begin{array}{l} \div 2.5 \quad 2.5 \text{kg} = \pounds 1.70 \\ \hline \times 3.25 \quad 1 \text{kg} = \pounds 0.68 \\ \hline \quad \quad \quad 3.25 \text{kg} = \pounds 2.21 \end{array}$$

Answer £ £2.21 ✓

11 300 passengers go on a coach trip.

Video created by W Neill

N13

Each coach takes 50 passengers.

Each passenger pays £25

The table shows the costs for the coach company.

	Cost for each coach
Pay for driver	£90
Fuel	70p per mile

Each coach travels 200 miles.

Work out the **total** profit the company makes from this trip.

[6 marks]

Answer £ _____

11 300 passengers go on a coach trip.

Video created by W Neill

N13

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Each passenger pays £25

The table shows the costs for the coach company.

	Cost for each coach
Pay for driver	£90
Fuel	70p per mile

Each coach travels 200 miles.

Work out the **total** profit the company makes from this trip.

$$\begin{array}{r} \text{Company Costs} = 840 \\ + 1,540 \\ \hline \pounds 1,380 \end{array}$$

$$\begin{array}{r} \text{Profit} \\ 7,800 \\ - 1,380 \\ \hline 6,420 \end{array}$$

Answer £ 6,420 ✓

Money made

$$300 \times \pounds 25$$

$$= \pounds 7,500 \checkmark$$

$$\text{Drivers} = \frac{300}{50} = 6 \text{ coaches}$$

$$6 \times \text{Drivers} = 6 \times \pounds 90 \\ = \pounds 540 \checkmark$$

$$\begin{aligned} 6 \text{ coaches} &= 6 \times 200 \text{ miles} \\ &= 1200 \text{ miles} \times 70\text{p} \\ &= 84000\text{p} \\ &= \pounds 840 \end{aligned}$$

6 Saj wants to go to all 19 home games at a football club.

N13

For each game, a ticket costs £28

A season ticket

costs £379

and

gives entry to all 19 home games.

In total, how much does Saj save by buying a season ticket?

[3 marks]

Answer £ _____

6

Saj wants to go to all 19 home games at a football club.

N13

For each game, a ticket costs £28

A season ticket

costs £379

and

gives entry to all 19 home games.

In total, how much does Saj save by buying a season ticket?

[3 marks]

No season ticket.

$$£28 \times 19$$

$$£532 \checkmark$$

$$\text{Ticket} = £379$$

$$\text{Savings... } 532 - 379$$

=

$$153 \checkmark$$

Answer £

153 ✓

8

Jim has six banknotes.

N13

The value of each note is £5 or £10 or £20

He **can** make £20 with three notes.

He **can** make £55 with four notes.

He **cannot** make £25 with three notes.

He **cannot** make £25 with four notes.

List the six notes.

[2 marks]

£ _____

£ _____

£ _____

£ _____

£ _____

£ _____

8

Jim has six banknotes.

N13

The value of each note is £5 or £10 or £20

He **can** make £20 with three notes.

He **can** make £55 with four notes.

He **cannot** make £25 with three notes.

He **cannot** make £25 with four notes.



List the six notes.

[2 marks]

£ 5

£ 5

£ 10

£ 20

£ 20

£ 20

12 (b) The table shows the profit or loss the takeaway makes on each pizza.

N13

	Normal price	Offer price
10-inch	£3.74 profit	51p loss
12-inch	£5.29 profit	4p loss

In week 1 the total profit was £1895.55

At the end of week 1 the takeaway spent £175 on adverts.

Was the **increase** in profit in week 2 more than the cost of the adverts?

You **must** show your working.

[4 marks]

Answer _____

12 (b) The table shows the profit or loss the takeaway makes on each pizza.

N13

	Normal price	Offer price
10-inch	£3.74 profit	51p loss
12-inch	£5.29 profit	4p loss

Increase in Profit

$$2158.26 - 1895.55$$

$$= \pounds 262.71$$

In week 1 the total profit was £1895.55

At the end of week 1 the takeaway spent £175 on adverts.

Was the **increase** in profit in week 2 more than the cost of the adverts?

You **must** show your working.

Profit in week 2

10inch	Normal	396	x	£3.74	}	£1481.04	
	offer	- 362	x	£0.51			-£184.62
						}	£2158.26
12inch	Normal	- 164	x	£5.29	+£867.56		
				143 x £0.04	- £5.72		

Answer _____

Yes $262.71 > \pounds 175$
ans ✓

6 (a) Complete the bank statement.

[3 marks]

N13

Date	Description	Credit (£)	Debit (£)	Balance (£)
01/09/18	Starting balance			1140.79
06/09/18	Car repairs		256.00	_____
17/09/18	Gas bill		87.31	_____
24/09/18	Salary	2069.75		_____

6 (b) Write down the meaning of 'Debit' as used in the bank statement.

[1 mark]

6 (a) Complete the bank statement.

[3 marks]

N13

Date	Description	Credit (£)	Debit (£)	Balance (£)
01/09/18	Starting balance			1140.79
06/09/18	Car repairs		256.00	<u>884.79</u>
17/09/18	Gas bill		87.31	<u>797.48</u>
24/09/18	Salary	2069.75		<u>2867.23</u>

6 (b) Write down the meaning of 'Debit' as used in the bank statement.

[1 mark]

Money coming out of the account.

8 Beth sells hot dogs at a market.

Each hot dog is a sausage in a bread roll.

N13



Hot dogs
£3 each

Beth sells the hot dogs for £3 each.

She sells 300 hot dogs.

Work out her total profit. **[5 marks]**

The table shows her costs.

Fee paid to market	£240
Bread rolls	42p per pack of 6
Sausages	£2.50 per jar of 10
Other costs	£57

Answer £ _____

8 Beth sells hot dogs at a market.

Each hot dog is a sausage in a bread roll.

N13



Hot dogs
£3 each

Beth sells the hot dogs for £3 each.

She sells 300 hot dogs.

Work out her total profit. [5 marks]

The table shows her costs.

Fee paid to market	£240
Bread rolls	42p per pack of 6
Sausages	£2.50 per jar of 10
Other costs	£57

Total cost £393

She makes $300 \times £3$
£900

Costs . . . £240

50 packs \times £0.42 = £21

30 jars \times £2.50 = £75

£57 =

Profit = £900 - 393

Answer £ 507 ✓

18 Bottles of drink are for sale at three shops.

Video created by W Neill

The normal price of a bottle is the same at each shop.

N13
R8

Shop A
Buy 1 bottle
Get 2 more bottles at half price

Shop B
Buy 2 bottles
Get 3 more bottles at half price

Shop C
30% off a bottle

What is the cheapest way to buy **exactly** 8 bottles?

You can buy from more than one shop.

You **must** show your working.

[3 marks]

Answer _____

18 Bottles of drink are for sale at three shops.
 The normal price of a bottle is the same at each shop.

Video created by W Neill

bottle = £1

N13
R8

Shop A
 Buy 1 bottle
 Get 2 more bottles at half price

Shop B
 Buy 2 bottles
 Get 3 more bottles at half price

Shop C
 30% off a bottle

30% of £1 = 30p

A	B	C
£1	£1	70p
50p	£1	70p
50p	50p	70p
£1	50p	70p
50p	50p	70p
50p	£1	70p
£1	£1	70p
50p	50p	70p
50p	50p	70p
	50p	70p

£1.40

What is the cheapest way to buy **exactly** 8 bottles?
 You can buy from more than one shop.
 You **must** show your working.

6 bottles from A
 and 2 bottles from C.

Answer _____

Video created by W Neill

13 To make one cheese sandwich, Gina uses one bread roll and two cheese slices.

N13
N23

Pack of 15 bread rolls

£1.88

Pack of 20 cheese slices

£2.15

She is going to buy enough packs to
have exactly twice as many cheese slices as bread rolls
make **more than** 100 cheese sandwiches.

Work out the least amount she can spend.

[4 marks]

Answer £ _____

13 To make one cheese sandwich, Gina uses one bread roll and two cheese slices.

N13

N23

least 100
Pack of 15 bread rolls
£1.88

Pack of 20 cheese slices
£2.15

She is going to buy enough packs to
have exactly twice as many cheese slices as bread rolls
make **more than** 100 cheese sandwiches.

Work out the least amount she can spend.

[4 marks]

BR... 15, 30, 45, 60, 75, 90, 105, 120, 135..

CS... 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 220, 240 — 12 packs

$$8 \times £1.88 = £15.04$$

$$12 \times £2.15 = \underline{£25.80}$$

Answer £

40.84 ✓