Chhetri Academy

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GCSE MATHS

Ratio, proportion and rates of change

Edexcel 1MA1 | Subtopic collection Topic 35

Speed, density, pressure and best buys

Foundation tier

Past paper question booklet

133	2010-2025	Foundation
question groups	available papers	tier

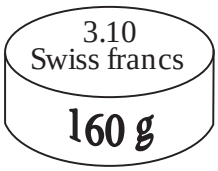
Before you begin

1. Show working and use units where appropriate.
2. Use extra paper if you need more space.
3. Print at actual size (100%) for measurement questions.

Name _____ **Date** _____

Whole questions are retained for context; some parts cover other points. Legacy sources are labelled.

***14** Margaret is in Switzerland.
The local supermarket sells boxes of Reblochon cheese.



Each box of Reblochon cheese costs 3.10 Swiss francs.
It weighs 160 g.

In England, a box of Reblochon cheese costs £13.55 per kg.

The exchange rate is £1 = 1.65 Swiss francs.

Work out whether Reblochon cheese is better value for money in Switzerland or in England.

(Total for Question 14 is 4 marks)

12 Sarah goes to the gym on her way to work.
The table shows what she wants to do before arriving at work.

Activity	Time (mins)
Drive from home to gym	10
Exercise at gym	45
Shower and change	20
Drive from gym to work	25

She has to arrive at work at 08 50

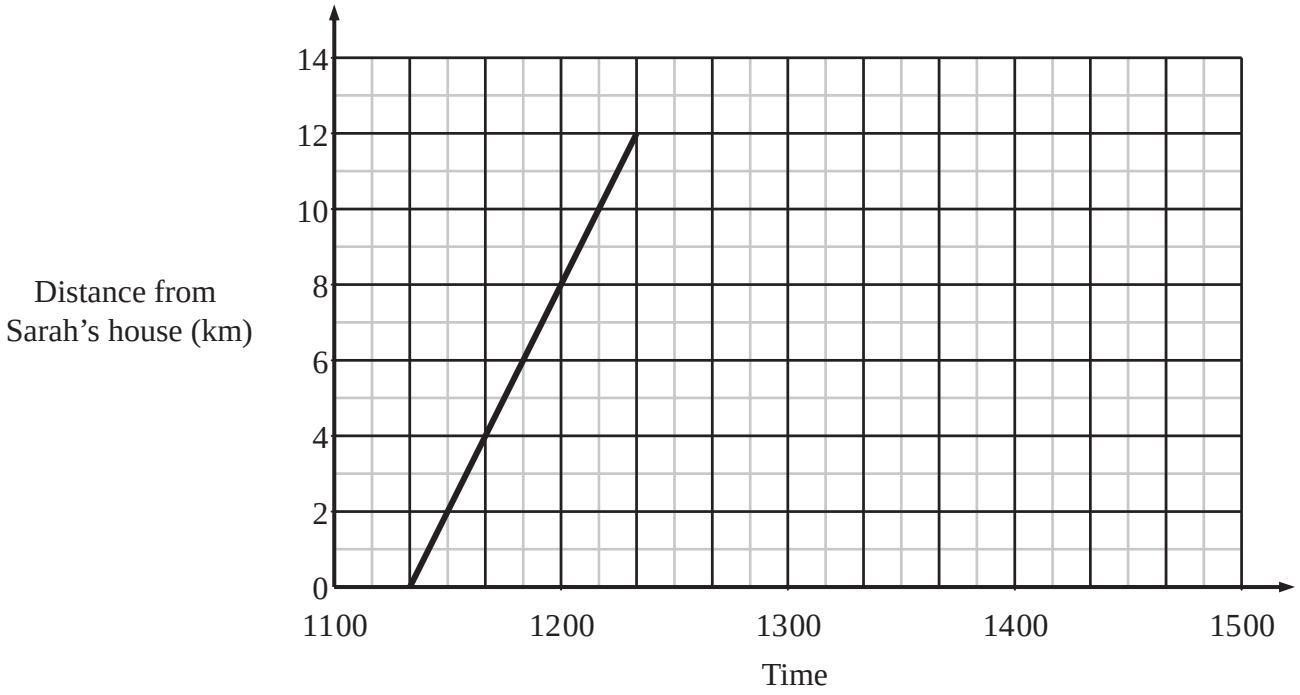
(a) What is the latest time she can leave home?

.....

(3)

Each Saturday, Sarah cycles from her house to the gym.

The travel graph shows Sarah's journey to the gym.



(b) What time does she leave home?

.....

(1)

(c) How far is the gym from Sarah's house?

..... km

(1)

Sarah stays at the gym for $1\frac{1}{2}$ hours.

She then cycles back to her house at 18 km/h.

(d) Complete the travel graph.

(3)

(Total for Question 12 is 8 marks)

***14** Beth is planning a trip for a group of 36 people.
The group can go to a theme park **or** to a concert.

If they go to the concert, they will go by train.
If they go to the theme park, they will go by coach.

Beth has information about the costs.

Theme Park Ticket Prices

£9 per person

or

£6.50 per person

in a group of 10 or more people

Coach Hire

24 seats £260

40 seats £320

54 seats £410

Concert Ticket Price

£7.50

Return Train Fares

£8.25 each

or

£26.50 for each group of 4 people

What is the least possible total cost of the trip?
You must show all your working.

(Total for Question 14 is 5 marks)

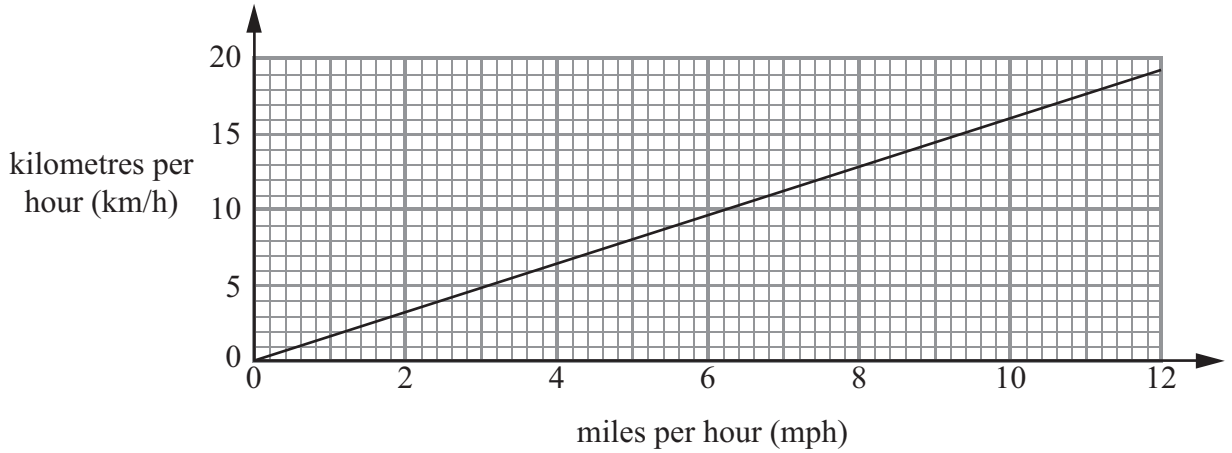
***19** Mr Smith drives 24 miles to work.

On Monday his journey to work takes 30 minutes.
On Tuesday the average speed of his journey to work is 56 km/h.

Did Mr Smith drive more quickly to work on Monday or Tuesday?
You must show all your working.

(Total for Question 19 is 4 marks)

10



This conversion graph can be used to change between kilometres per hour (km/h) and miles per hour (mph).

(a) Use the conversion graph to change 10 mph to km/h.

..... km/h

(1)

(b) Use the conversion graph to change 4 km/h to mph.

..... mph

(1)

Stefan runs at an average speed of 6 mph.
Debbie runs at an average speed of 10.5 km/h.

(c) (i) Who has the greater average speed, Stefan or Debbie?

.....

(ii) How did you get your answer?

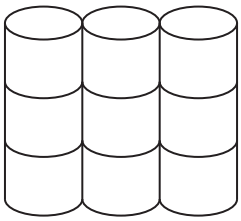
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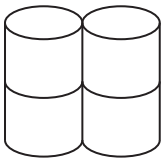
(2)

(Total for Question 10 is 4 marks)

19



Pack of 9 toilet rolls £4.23



Pack of 4 toilet rolls £1.96

A pack of 9 toilet rolls costs £4.23
A pack of 4 toilet rolls costs £1.96

Which pack gives the better value for money?

You must show all your working.

.....

(Total for Question 19 is 3 marks)

***23** Potatoes cost £9 for a 12.5 kg bag at a farm shop.
The same type of potatoes cost £1.83 for a 2.5 kg bag at a supermarket.

Where are the potatoes the better value, at the farm shop or at the supermarket?
You must show your working.

(Total for Question 23 is 4 marks)

7



Single calculator

£3.75



Pack of three calculators

£9

A shop sells calculators.

In the shop,
a single calculator costs £3.75
a pack of three calculators costs £9

Sarah buys 8 of these calculators.
She buys the calculators at the least possible cost.

Sarah pays with two £20 notes.

How much change should she get?

£ .....

(Total for Question 7 is 3 marks)

***11** Pete and Sue are going to take their children to France.
They will travel together on the same ferry.
They will travel with one of two ferry companies, Easy Ferry or Seawagon.

The tables give information about the costs for each adult and each child to travel with these ferry companies.

Easy Ferry	**July**			**August**		
Date	**1 – 10**	**11 – 21**	**22 – 31**	**1 – 10**	**11 – 21**	**22 – 31**
Adult	£32.00	£36.50	£39.50	£42.25	£42.25	£37.75
Child	£18.00	£20.25	£23.75	£25.85	£25.85	£21.00

Seawagon	**July**			**August**		
Date	**1 – 10**	**11 – 21**	**22 – 31**	**1 – 10**	**11 – 21**	**22 – 31**
Adult	£33.50	£37.50	£40.25	£43.85	£44.95	£38.50
Child	£17.25	£19.75	£21.85	£24.65	£23.95	£19.95

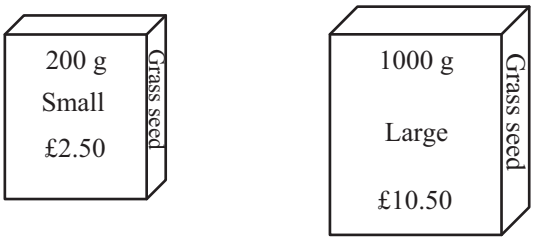
Pete and Sue have three children.
They will travel on 25 July.

They will travel with the cheaper ferry company.

Which ferry company?
You must show all your working.

(Total for Question 11 is 4 marks)

***12** Nilmini is going to buy some grass seed.



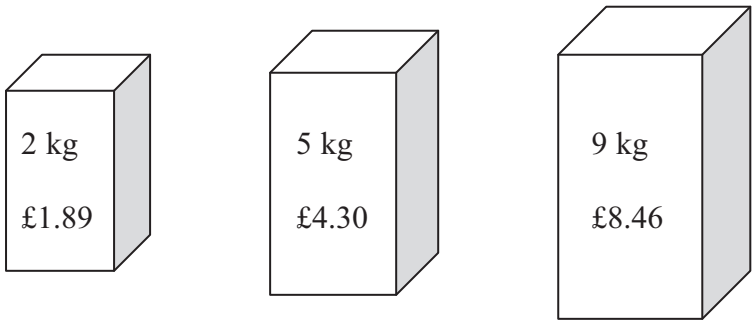
Grass seed is sold

in 200 g boxes costing £2.50 each,
in 1000 g boxes costing £10.50 each.

Which box of grass seed gives the better value for money?
You must show all your working.

(Total for Question 12 is 3 marks)

***21** Soap powder is sold in three sizes of box.



A 2 kg box of soap powder costs £1.89
A 5 kg box of soap powder costs £4.30
A 9 kg box of soap powder costs £8.46

Which size of box is the best value for money?
Explain your answer.
You must show all your working.

(Total for Question 21 is 4 marks)

10 Here are the ticket prices for entry to a museum.

Ticket prices
Adult ticket £12 Child ticket £7 Senior ticket £8
Family ticket (2 adult tickets and 2 child tickets) £30

Shamus takes his family to the museum.

He gets tickets for

2 adults,
3 children,
1 senior.

Shamus pays the least possible amount of money for the tickets.
He pays with three £20 notes.

How much change should he get?

£.....

(Total for Question 10 is 4 marks)

19 It takes Tom 1 hour to lay 30 bricks.
He has to lay 180 bricks.

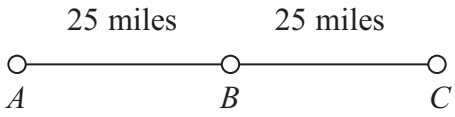
Tom starts to lay the bricks at 9 am.
He has half an hour break at 11 am.
He has another half an hour break at 1 pm.

What time should Tom finish laying the 180 bricks?

.....

(Total for Question 19 is 3 marks)

23



A, *B* and *C* are 3 service stations on a motorway.

AB = 25 miles
BC = 25 miles

Aysha drives along the motorway from *A* to *C*.

Aysha drives at an average speed of 50 mph from *A* to *B*.
She drives at an average speed of 60 mph from *B* to *C*.

Work out the difference in the time Aysha takes to drive from *A* to *B* and the time Aysha takes to drive from *B* to *C*.
Give your answer in minutes.

..... minutes

(Total for Question 23 is 3 marks)

*19 Joan is planning a skiing holiday in Hinterglemm for herself and her two children.
They are going skiing for 6 days.

The table shows the costs of ski hire, of boot hire and of buying lift passes in two shops in Hinterglemm.
All prices are in Euros.

Shop A

		Ski hire	Boot hire	Lift pass
Adult	**6 days**	111	53	236
	13 days	168	90	314
Child	**6 days**	78	52	165
	13 days	122	87	210

Shop B

		Ski hire	Boot hire	Lift pass
Adult	**6 days**	108	54	242
	13 days	170	89	324
Child	**6 days**	68	48	160
	13 days	118	85	205

Joan will use her own skis and her own boots.

For 6 days she will need

to hire skis for each of her two children
to hire boots for each of her two children
and to buy lift passes for herself and each of her two children.

Shop A gives 5% off the total cost.
Shop B gives 3% off the total cost.

Joan wants to hire the skis and boots and buy the lift passes from the same shop.
She wants to get everything from the cheaper shop.

Which shop is cheaper for Joan?
You must show all your working.

(Total for Question 19 is 5 marks)

16 Richard's car uses 1 litre of petrol every 8 miles.
Petrol costs £1.30 per litre.

Richard drives 240 miles.

Work out the total cost of the petrol the car uses.

£ .....

(Total for Question 16 is 3 marks)

*5 Deepa sees these two adverts for jobs.

Flowers Garden Centre



18 hours per week
£5.78 per hour

Fred's DIY Store



20 hours per week
£5.64 per hour

Which job pays the most per week?

(Total for Question 5 is 3 marks)

8 Mr and Mrs Pickard and their two children, Lena and Adam, go to a theme park.

Here are the ticket prices for the theme park.

Theme Park

Ticket Prices

Adult	£24
Child under 16	£15
Child under 5	Free
Family ticket	£60

Lena is 8 years old.
Adam is 4 years old.

They can get a family ticket or they can get 4 separate tickets.
It is cheaper to get a family ticket.

How much cheaper?

£ .....

(Total for Question 8 is 4 marks)

***10** Jamie and Lily are at college.

They want to buy some lockers for their common room.
They decide to do a sponsored walk to raise the money to buy the lockers.

Some people will give them money for each mile they walk.
Some people will give them a fixed amount of money.

Here are Jamie's and Lily's sponsor forms.

Jamie's Form		
Name	**Amount**	**Total**
Jane	£1 per mile	
Neil	£12	£12
Nasir	£2 per mile	
	Total	

Lily's Form		
Name	**Amount**	**Total**
Claire	£10	£10
Ben	£15	£15
John	£1 per mile	
Sam	£5	£5
	Total	

Jamie and Lily each walk 18 miles.
The lockers cost £108

Do Jamie and Lily get enough money to buy the lockers?
You must show your working.

(Total for Question 10 is 5 marks)

*15 Gordon owns a shop.

Here are the prices of three items in Gordon's shop and in a Supermarket.

Gordon's Shop	
400 g loaf of bread	£1.22
1 litre of milk	£0.96
40 tea bags	£2.42

Supermarket	
400 g loaf of bread	£1.15
1 litre of milk	£0.86
40 tea bags	£2.28

Gordon reduces his prices by 5%.
Will the total cost of these three items be cheaper in Gordon's shop than in the Supermarket?

(Total for Question 15 is 3 marks)

13 You can use this rule to work out the total cost of hiring a car.

Total cost = £4 per hour plus £12

Arun hires a car for 5 hours.

(a) Work out the total cost.

£ .....

(2)

Raj hires a car.
The total cost is £40

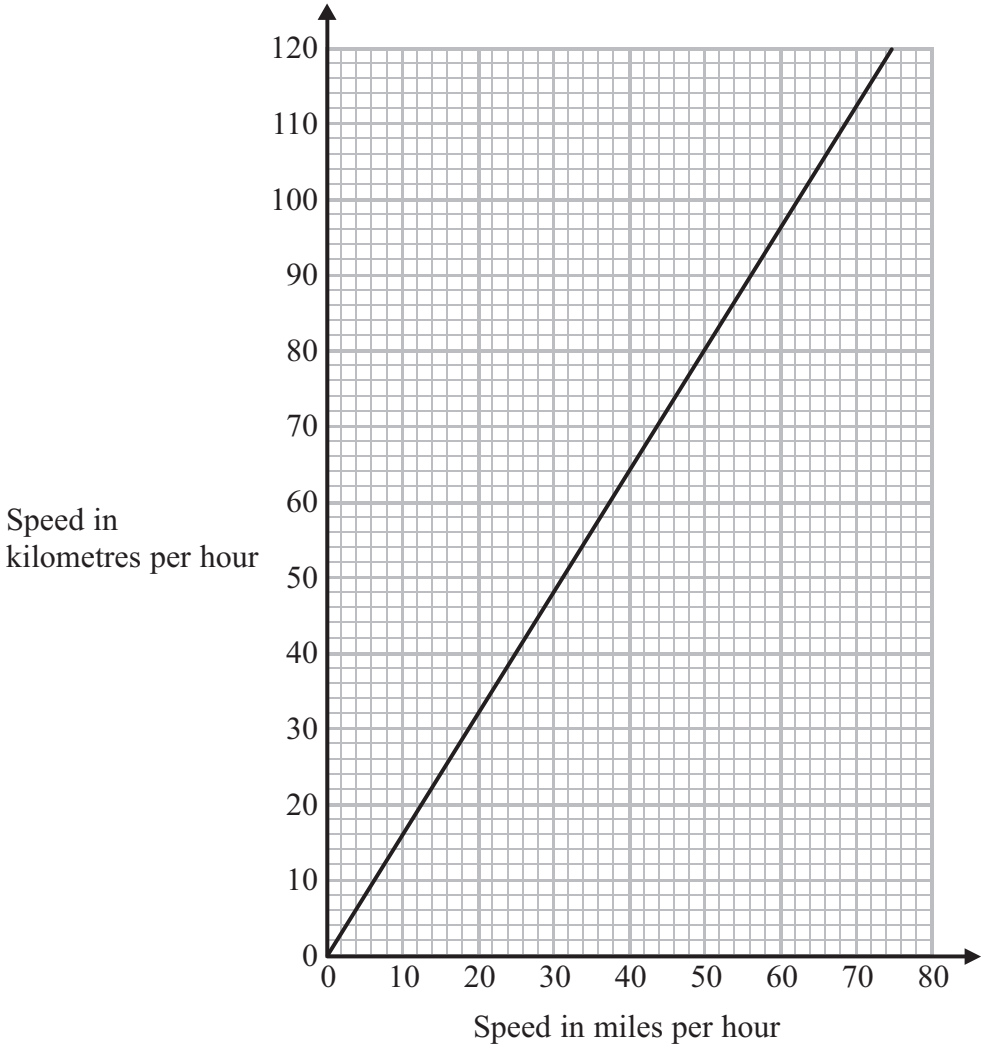
(b) Work out how many hours Raj hires the car for.

..... hours

(3)

(Total for Question 13 is 5 marks)

8 Here is a conversion graph.



You can use the graph to change between speed in miles per hour and speed in kilometres per hour.

(a) Change 30 miles per hour to kilometres per hour.

..... kilometres per hour
(1)

(b) Change 72 kilometres per hour to miles per hour.

..... miles per hour
(1)

Jack is in France.
He has to drive 180 miles to the ferry.
He has 3 hours to get to the ferry.

In France, Jack must not drive at a speed greater than 90 kilometres per hour.

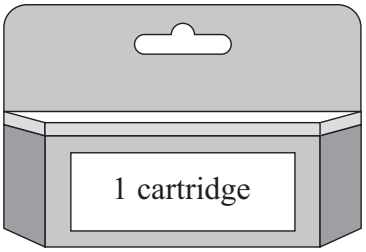
*(c) Can Jack drive to the ferry in 3 hours?
You must show all your working.

(3)

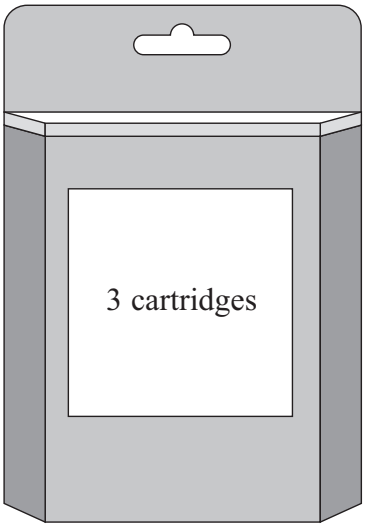
(Total for Question 8 is 5 marks)

11 George is going to buy exactly 10 ink cartridges.

Ink Cartridges



£9.39 per cartridge



£24.30 for a pack of 3 cartridges

Find the difference in cost between the cheapest way and the most expensive way to buy the 10 ink cartridges.

.....

(Total for Question 11 is 5 marks)

24 Peter goes for a walk.
He walks 15 miles in 6 hours.

(a) Work out Peter's average speed.
Give your answer in miles per hour.

..... mph
(2)

5 miles = 8 km.
Sunita says that Peter walked more than 20 km.

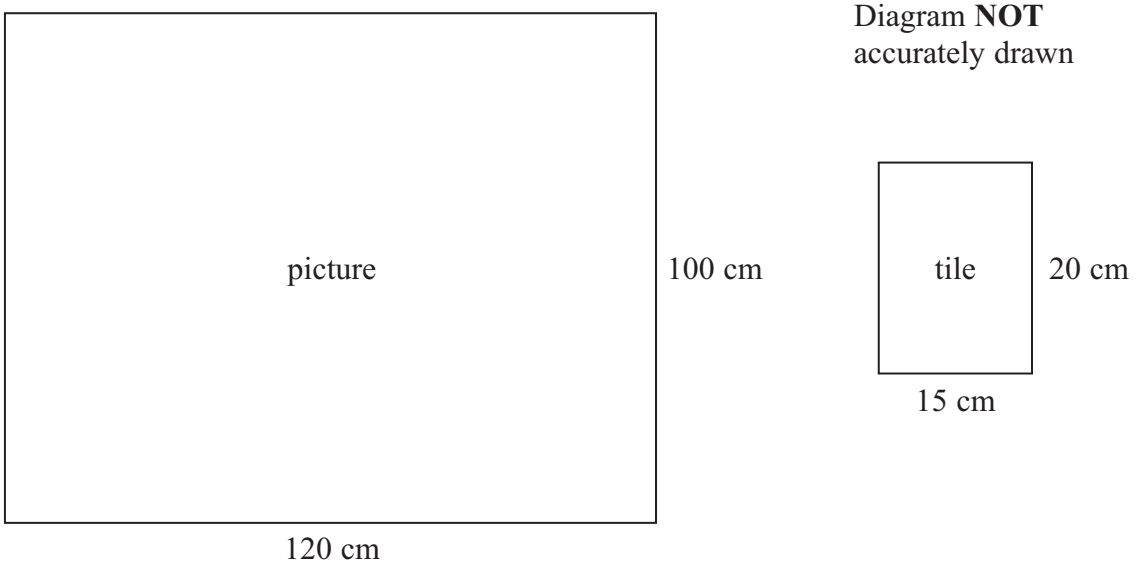
*(b) Is Sunita right?
You must show all your working.

(2)

(Total for Question 24 is 4 marks)

19 A picture is made from tiles.

The diagram shows the picture in the shape of a rectangle, 120 cm by 100 cm.
It also shows a tile in the shape of a rectangle, 15 cm by 20 cm.



(a) Work out the number of these tiles needed to make the picture.

.....

(3)

The total cost of the tiles is £52 plus VAT.
The rate of VAT is 20%.

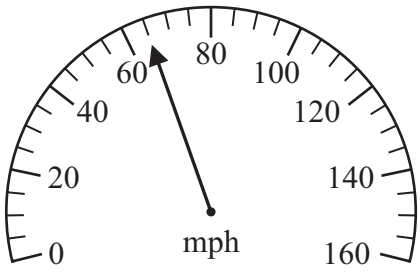
(b) Work out 20% of £52

£.....

(2)

(Total for Question 19 is 5 marks)

3



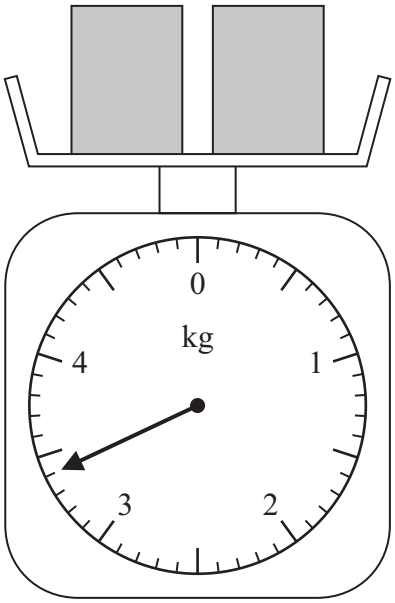
The diagram shows the speed of a car.

(a) Write down the speed.

..... mph

(1)

The diagram shows two boxes on some scales.



Each box has the same weight.

(b) Work out the weight of each box.

..... kg

(2)

(Total for Question 3 is 3 marks)

8 The table gives information about the cost of cinema tickets.

Cinema tickets	Before 5pm	5pm and after
adult ticket	£6.35	£7.55
child ticket (ages 2 – 12)	£4.75	£5.65
teen ticket (ages 13 – 18)	£5.05	£6.05
family ticket (for 4 people)	£19.00	£22.60

Mr and Mrs White have 2 children.
One child is aged 10
The other child is aged 14

Mr and Mrs White and their 2 children go to the cinema **after** 5pm.

It is cheaper for Mr and Mrs White to buy 1 family ticket than to buy 4 separate tickets.

How much cheaper?

£.....

(Total for Question 8 is 4 marks)

5 Chris wants to go to the theatre with her friends.

On Saturday night a theatre ticket costs £67.50

Chris sees this special offer for theatre tickets.

Special Offer
Monday night Theatre tickets
2 tickets for £75

Chris needs 8 theatre tickets.

It will be cheaper to buy the 8 tickets for Monday night rather than for Saturday night.
How much cheaper?

£.....

(Total for Question 5 is 3 marks)

***22** Ketchup is sold in three different sizes of bottle.



Small bottle Medium bottle Large bottle

A small bottle contains 342 g of ketchup and costs 88p
A medium bottle contains 570 g of ketchup and costs £1.95
A large bottle contains 1500 g of ketchup and costs £3.99

Which bottle is the best value for money?
You must show your working.

(Total for Question 22 is 4 marks)

18 On Monday Ravi drives for 4 hours.
His average speed is 30 mph.

(a) How far does Ravi drive on Monday?

..... miles
(2)

On Tuesday Ravi drives 200 km.

5 miles = 8 kilometres.

*(b) On which day did Ravi drive further?

(3)

(Total for Question 18 is 5 marks)

Question 31

***15** Brian makes egg cups.
He makes 12 egg cups per hour.

Brian makes egg cups for $4\frac{1}{2}$ hours each day, on 5 days of the week.

The egg cups are packed in boxes.
8 egg cups are packed into each box.

How many boxes are needed for all the egg cups Brian makes in 5 days?

(Total for Question 15 is 4 marks)

***19** Plants are sold in three different sizes of tray.

A small tray of 30 plants costs £6.50
A medium tray of 40 plants costs £8.95
A large tray of 50 plants costs £10.99

Kaz wants to buy the tray of plants that is the best value for money.

Which size tray of plants should she buy?
You must show all your working.

(Total for Question 19 is 4 marks)

***28** Axel and Lethna are driving along a motorway.

They see a road sign.
The road sign shows the distance to Junction 8
It also shows the average time drivers will take to get to Junction 8

To Junction 8
30 miles 26 minutes

The speed limit on the motorway is 70 mph.

Lethna says,

'We will have to drive faster than the speed limit to go 30 miles in 26 minutes.'

Is Lethna right?
You must show how you got your answer.

(Total for Question 28 is 3 marks)

8 This rule can be used to work out the distance travelled by a car on a journey.

Distance travelled = average speed × time taken

On a journey, a car's average speed was 80 kilometres per hour.
The time taken was 4 hours.

(a) Work out the distance travelled by the car.

.....kilometres
(2)

On a different journey, the distance travelled by the car was 130 kilometres.
The time taken was 2 hours.

(b) Work out the average speed.

.....kilometres per hour
(2)

(Total for Question 8 is 4 marks)

***26** Milk is sold in two sizes of bottle.



A 4 pint bottle of milk costs £1.18
A 6 pint bottle of milk costs £1.74

Which bottle of milk is the best value for money?
You must show all your working.

(Total for Question 26 is 3 marks)

9 Sarah wants a music magazine each month for a year.

She can

pay £3.50 each month

or

pay £37.20 for the year.

Sarah pays £37.20 for the year.

How much cheaper is this than paying £3.50 each month?

£.....

(Total for Question 9 is 3 marks)

20 A factory makes 1500 cans per minute.

The factory makes cans for 8 hours each day.

Each can is filled with 330 m*l* of cola.

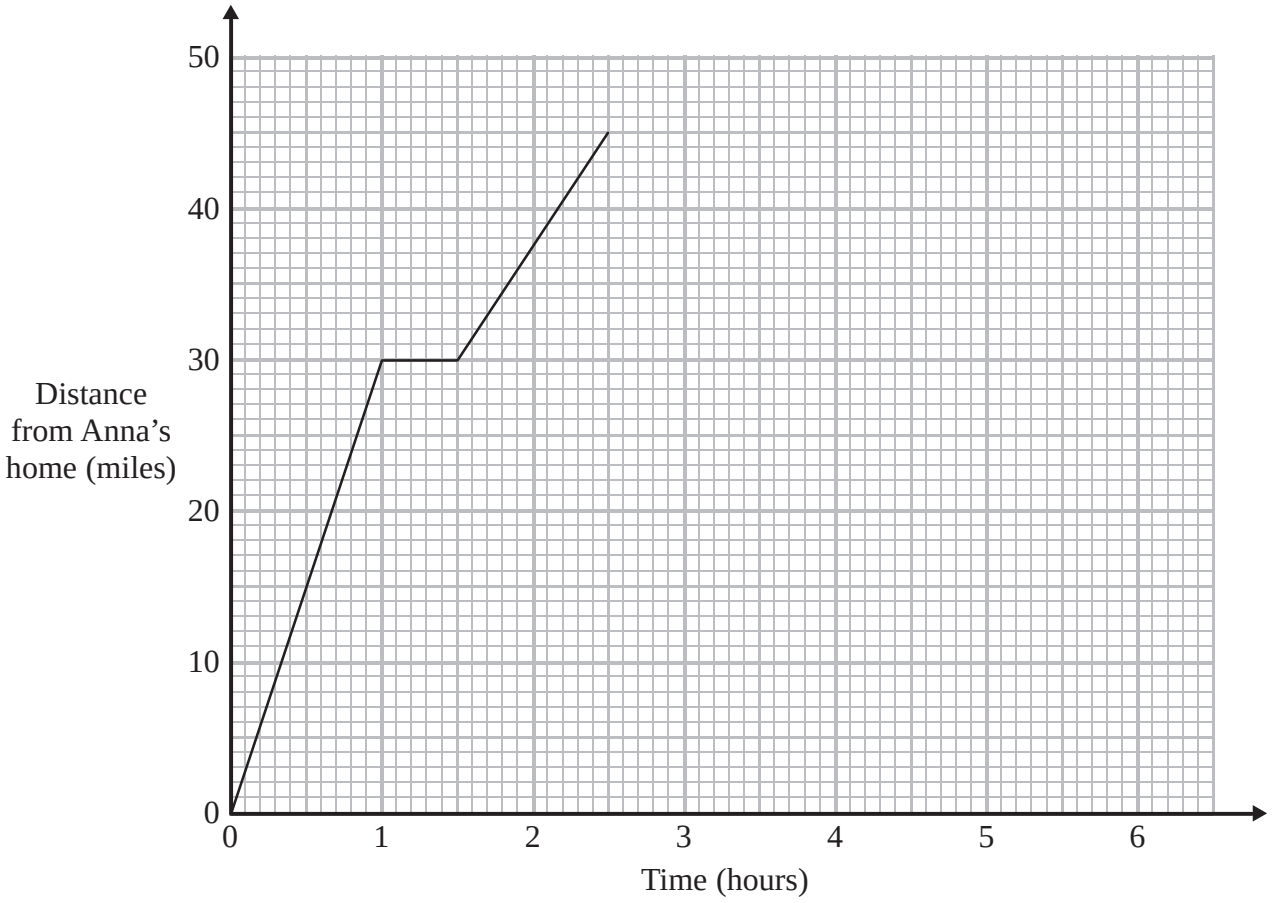
How much cola is needed to fill all the cans that are made each day?
Give your answer in litres.

..... litres

(Total for Question 20 is 4 marks)

22 Anna drives 45 miles from her home to a meeting.

Here is the travel graph for Anna's journey to the meeting.

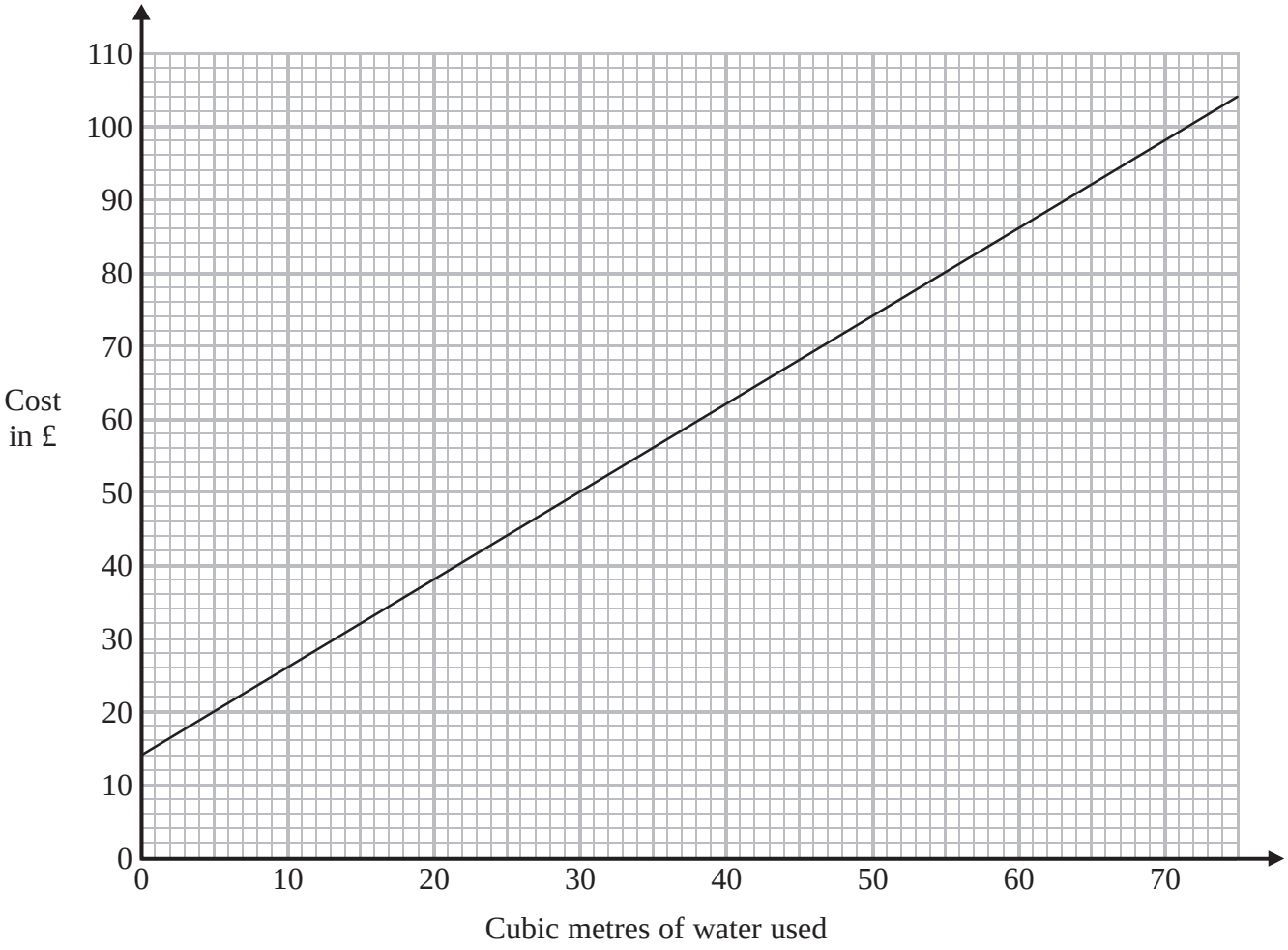


Anna's meeting lasts for 1 hour.
She then drives home at a steady speed of 30 miles per hour with no stops.

Complete the travel graph to show this information.

(Total for Question 22 is 2 marks)

***8** Mr Shah is thinking of having a water meter fitted for his house.
For a house with a water meter fitted, the graph shows information about the cost, in pounds (£), of buying water.



Mr Shah does **not** have a water meter.
He used 50 cubic metres of water.
The cost was £80

Would the cost of the water have been cheaper if Mr Shah had a water meter?
You must explain your answer.

(Total for Question 8 is 2 marks)

13 The information in the table can be used to change between Euros (€) and Pounds (£).

Pounds (£)	10	20	100	400
Euros (€)	12.50	25	125	500

(a) Change £25 to Euros.

€.....

(2)

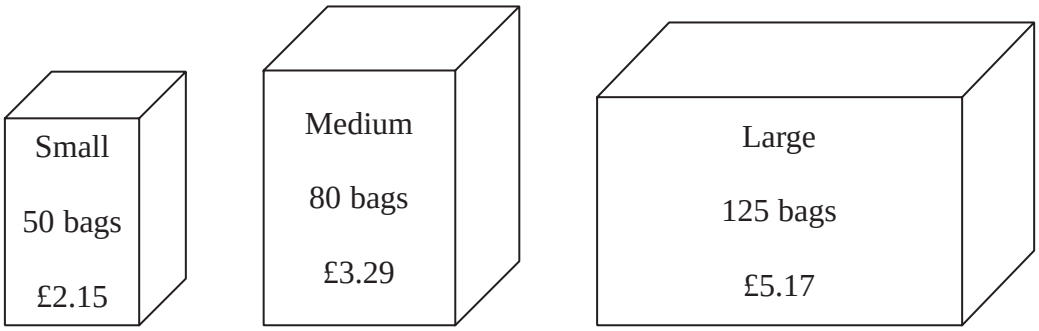
In France a coat costs €100
In England an identical coat costs £90

*(b) In which country is the coat cheaper?

(3)

(Total for Question 13 is 5 marks)

***21** Tea bags are sold in three sizes of box.



A small box of 50 tea bags costs £2.15
A medium box of 80 tea bags costs £3.29
A large box of 125 tea bags costs £5.17

Which size of box is the best value for money?

(Total for Question 21 is 4 marks)

***13** Sandeep and her 3 friends are going shopping in town.

Sandeep finds out these costs of getting to town.

Tram	Taxi
£3.50 each	£2.20 booking fee plus £1.20 per mile

The journey to town is 10 miles.

Is it cheaper for all 4 people to go to town by tram or to go to town by taxi?
You must show your working.

(Total for Question 13 is 4 marks)

***19**

Nail Company
50 nails
£4.15 plus VAT at 20%

Hammer Company
25 nails
£2.95
Special offer Buy 100 get 25 free

Barak is going to buy 550 nails from one of these companies.

He wants to buy the nails at the cheaper cost.

Where should he buy the nails, from the Nail Company or from the Hammer Company?

(Total for Question 19 is 5 marks)

***8** Becky wants to buy a table and six chairs.

Three shops sell the same types of tables and chairs.

Tables-R-Us	
Table	£120
Total for 4 chairs	£120
Each extra chair	£40

Fred's Furniture	
Table	£120
Each chair	£32

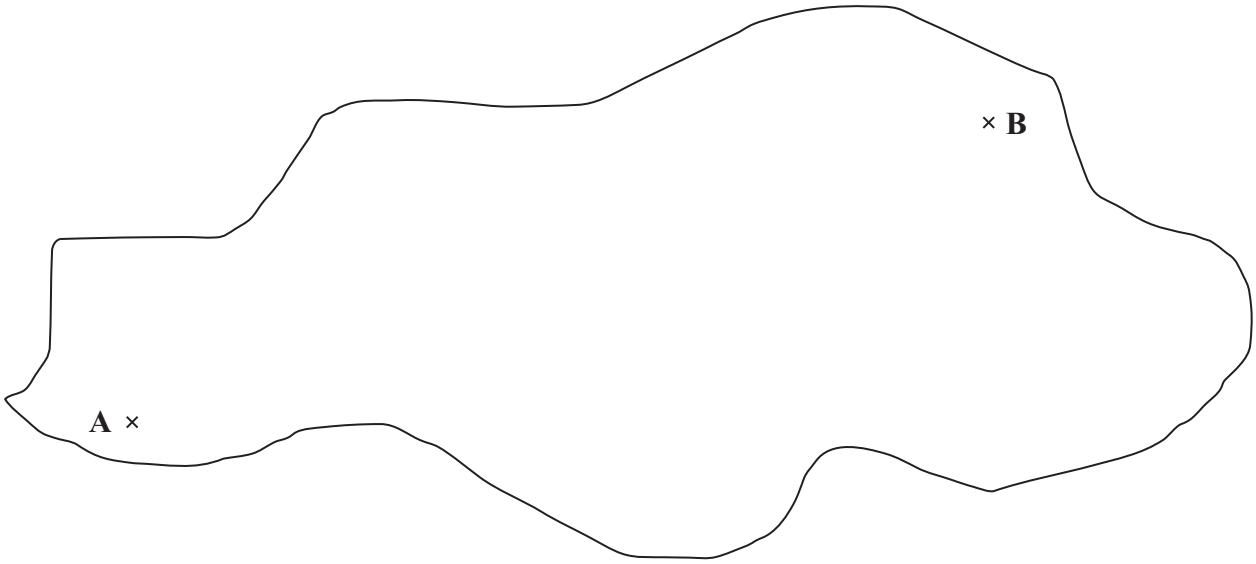
Tables 'n Chairs	
Table	£120
Total for 2 chairs	£70

Becky wants to buy the table and six chairs from the same shop.
She wants to pay the lowest total price.

Which shop should Becky buy the table and six chairs from?
You must show all your working.

(Total for Question 8 is 4 marks)

18 The map shows two airports, **A** and **B**.



Scale: 1 cm to 100 km

A plane flies directly from **A** to **B**.
The average speed of the plane is 300 km/h.

How long does the plane take to fly from **A** to **B**?
You must show all your working.

..... hours

(Total for Question 18 is 3 marks)

4 The table gives some information about four cars.

Car	Price (£)	Length (mm)	Top speed (mph)	Engine size (cc)
Ficus	19 195	2650	120	999
Hind	18 995	2650	116	1582
Avris	20 535	2600	110	1798
Gulf	19 120	2580	121	1390

(a) Which of the four cars has the least length?

.....

(1)

(b) Which car has a price greater than £19 000 **and** a top speed of less than 120 mph?

.....

(1)

The price of the Ficus is £19 195

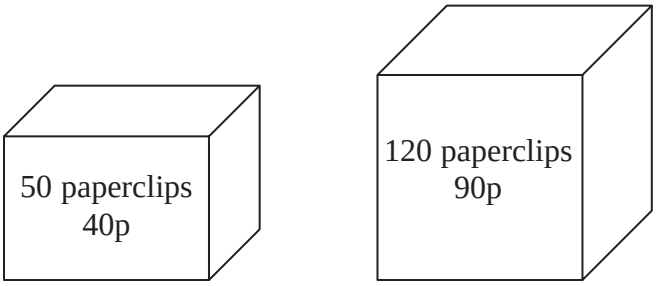
(c) Write 19 195 correct to the nearest 100

.....

(1)

(Total for Question 4 is 3 marks)

***16** Paperclips are sold in boxes.



Small box Large box

A small box has 50 paperclips and costs 40p.
A large box has 120 paperclips and costs 90p.

Which box is the better value for money?
You must show your working.

(Total for Question 16 is 3 marks)

16 Mia buys 3 kg of sweets for £11.40
She sells the sweets for 53p per 100 grams.

How much profit does Mia make per kilogram?

£.....

(Total for Question 16 is 4 marks)

8 The table shows the cost of posting large letters.

Weight range	0 – 100 g	101 g – 250 g	251 g – 500 g	501 g – 750 g
Cost	60 p	85 p	£1.13	£1.59

Sajid posts 8 large letters.
Each letter weighs 50 g.
Sajid pays with a £10 note.

(a) How much change should Sajid get?

£ .....

(3)

Some magazines have to be posted to a shop.

Adam wants to post the magazines as 10 large letters.
Each letter will have a weight of 250 g.

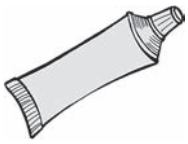
Tina wants to post the magazines as 5 large letters.
Each letter will have a weight of 500 g.

*(b) Who has the cheaper way of posting the magazines?
You must show all your working.

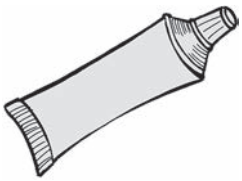
(3)

(Total for Question 8 is 6 marks)

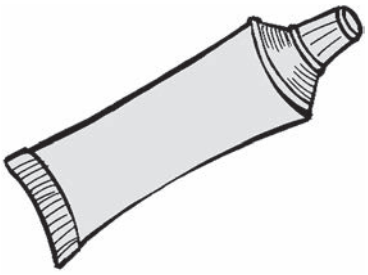
*27 Toothpaste is sold in three different sizes of tube.



50 m*l*



75 m*l*



125 m*l*

A 50 m*l* tube costs £1.09
A 75 m*l* tube costs £1.68
A 125 m*l* tube costs £2.69

Which tube of toothpaste is the best value for money?
You must show all your working.

(Total for Question 27 is 4 marks)

17 Bhavna drives 200 miles in 4 hours.

Work out her average speed.

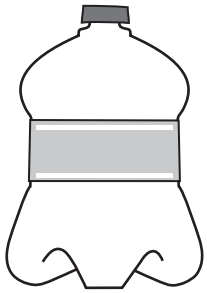
..... mph

(Total for Question 17 is 2 marks)

***22** A supermarket has two special offers on lemonade.

Bottles of lemonade

Special offer



15% off the normal price of each bottle

Cans of lemonade

Special offer



Buy 3 cans get 25p off the total cost

The normal price of a 2.5 litre bottle of lemonade is £1.60
The normal price of a 0.33 litre can of lemonade is 28p.

Jerry is going to buy 4 bottles of the lemonade on special offer or 30 cans of the lemonade on special offer.

Which special offer is the better value for money?

(Total for Question 22 is 5 marks)

4 The table gives information about the cost of calls and the cost of texts for each of two mobile phone networks.

	Telcom	**Swish**
Calls (per minute)	8p	3p
Texts (each)	4p	2p

Last week Amir

made 30 minutes of calls
and sent 40 texts

Amir used the Telcom network.

If Amir had used the Swish network, the total cost of his calls and texts would have been less.

How much less?

£ .....

(Total for Question 4 is 3 marks)

***22** A shop sells bags of crisps in different size packs.

There are

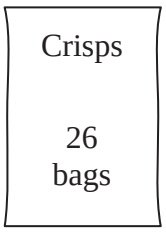
18 bags of crisps in a small pack
20 bags of crisps in a medium pack
26 bags of crisps in a large pack



£4 each pack



£4.99 each pack



£6 each pack

Which size pack is the best value for money?
You must show all your working.

(Total for Question 22 is 4 marks)

21

Train tickets
day return £6.45
monthly saver £98.50

Sue goes to work by train.

Sue worked for 18 days last month.
She bought a day return ticket each day she worked.

A monthly saver ticket is cheaper than 18 day return tickets.
How much cheaper?

£ .....

(Total for Question 21 is 4 marks)

21 David drives to the supermarket on his way home from work.

The table shows some information about his journey.

	Time
Leaves work	1730
Gets to supermarket	1745
Leaves supermarket	1810

(a) How many minutes is David at the supermarket?

..... minutes

(1)

David leaves the supermarket at 1810
He drives 20 miles to his home.
The speed limit for the journey is 30 mph.

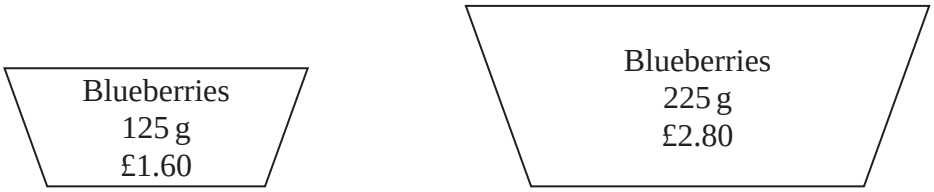
David drives within the speed limit.

*(b) Can David get home before 1900?
Give reasons for your answer.

(3)

(Total for Question 21 is 4 marks)

***24** Blueberries are sold in small cartons and in large cartons.



small carton

large carton

There are 125 g of blueberries in a small carton.
Each small carton costs £1.60

There are 225 g of blueberries in a large carton.
Each large carton costs £2.80

Which size of carton is the better value for money?
You must show your working.

(Total for Question 24 is 3 marks)

***10** Sally wants her two children to go to a nursery for 3 days each week.

The box shows how much Sally will need to pay the nursery.

Up to 3 years old	£45 per day
More than 3 years old	£37 per day

Sally's two children are 2 years old and 4 years old.

Sally can only pay up to £250 each week for her two children to go to a nursery.

Can Sally pay for her two children to go to this nursery?
You must show all your working.

(Total for Question 10 is 4 marks)

***18** The normal price of a watch is £80 in two shops, Tymes and Sekonds.

Both shops have a sale.

In Tymes the normal price of the watch is reduced by £18
In Sekonds the normal price of the watch is reduced by 20%

Which shop is selling the watch for the cheaper price in the sale?
You must show your working.

(Total for Question 18 is 3 marks)

14 Matthew has a job.
His normal hourly rate of pay is £10

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

Matthew is paid at the normal hourly rate for 7 hours work each day, Monday to Friday.
He does **not** work on Saturday or Sunday.

Here is a table showing the number of hours of overtime he worked each day this week.

	Mon	**Tues**	**Wed**	**Thur**	**Fri**
Overtime (hours)	3	2	0	1	3

Work out Matthew's total pay for this week.

£.....

(Total for Question 14 is 5 marks)

***7** A lift takes people to the top of a tower.
The lift stops only at the bottom of the tower and at the top of the tower.

The table below gives information about the times taken by the lift.

	Time taken
Waits at bottom of tower	1 minute
Goes up to top of tower	45 seconds
Waits at top of tower	1 minute
Goes down to bottom of tower	45 seconds

The lift can carry a maximum of 10 people.

Liz says that in 1 hour the lift can carry more than 200 people to the top of the tower.

Is Liz correct?
You must show how you get your answer.

(Total for Question 7 is 4 marks)

***19**

Best vans	Vans for hire
$\frac{1}{3}$ off normal price of £87 for each day No charge for the miles	£44 for each day **plus** 15p for each extra mile over 250 miles

Scott wants to hire a van for 2 days.
He is going to drive 400 miles in the van.

Scott wants to pay the least possible money to hire the van.

Should Scott hire the van from Best vans or from Vans for hire?
You must show all your working.

(Total for Question 19 is 5 marks)

24 Identical pairs of boots are sold in London, in Geneva and in Paris.

These boots have a price of

£115 in London
189 Swiss francs in Geneva
174 euros in Paris

The exchange rates are

£1 = 1.39 Swiss francs
£1 = 1.27 euros

Are the boots the best value for money in London or in Geneva or in Paris?
You must show how you get your answer.

.....

(Total for Question 24 is 3 marks)

Question 64

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.

£.....

(Total for Question 9 is 4 marks)

20 Olly drove 56 km from Liverpool to Manchester.
He then drove 61 km from Manchester to Sheffield.

Olly's average speed from Liverpool to Manchester was 70 km/h.
Olly took 75 minutes to drive from Manchester to Sheffield.

(a) Work out Olly's average speed for his total drive from Liverpool to Sheffield.

..... km/h

(4)

Janie drove from Barnsley to York.

Janie's average speed from Barnsley to Leeds was 80 km/h.
Her average speed from Leeds to York was 60 km/h.

Janie says that the average speed from Barnsley to York can be found by working out the mean of 80 km/h and 60 km/h.

(b) If Janie is correct, what does this tell you about the two parts of Janie's journey?

.....

.....

(1)

(Total for Question 20 is 5 marks)

Question 66

20 The density of apple juice is 1.05 grams per cm^3.

The density of fruit syrup is 1.4 grams per cm^3.

The density of carbonated water is 0.99 grams per cm^3.

25 cm^3 of apple juice are mixed with 15 cm^3 of fruit syrup and
280 cm^3 of carbonated water to make a drink with a volume of 320 cm^3.

Work out the density of the drink.
Give your answer correct to 2 decimal places.

..... g/cm^3

(Total for Question 20 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)

Question 68

November 2017 | 1MA1/2F | Original Q15

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)

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

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?

.....

(2)

(Total for Question 4 is 5 marks)

11 Jack's driving school has two offers.

Offer 1	**Offer 2**
First driving lesson free All other driving lessons normal price	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)

20 In London, 1 litre of petrol costs 108.9p
In New York, 1 US gallon of petrol costs $2.83

1 US gallon = 3.785 litres
£1 = $1.46

In which city is petrol better value for money, London or New York?
You must show your working.

(Total for Question 20 is 3 marks)

Question 72

November 2017 | 1MA1/3F | Original Q21

21 A gold bar has a mass of 12.5 kg.

The density of gold is 19.3 g/cm^3

Work out the volume of the gold bar.
Give your answer correct to 3 significant figures.

..... cm^3

(Total for Question 21 is 3 marks)

22 A cycle race across America is 3069.25 miles in length.

Juan knows his average speed for his previous races is 15.12 miles per hour.
For the next race across America he will cycle for 8 hours per day.

(a) Estimate how many days Juan will take to complete the race.

.....

(3)

Juan trains for the race.
The average speed he can cycle at increases.
It is now 16.27 miles per hour.

(b) How does this affect your answer to part (a)?

.....

.....

(1)

(Total for Question 22 is 4 marks)

9 Emily drives 186 miles in 3 hours.

(a) What is her average speed?

..... mph
(2)

Sarah drives at an average speed of 58 mph for 4 hours.

(b) How many miles does Sarah drive?

..... miles
(2)

(Total for Question 9 is 4 marks)

25 A force of 70 newtons acts on an area of $20\,cm^2$

$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

The force is increased by 10 newtons.
The area is increased by $10\,cm^2$

Helen says,

"The pressure decreases by less than 20%"

Is Helen correct?
You must show how you get your answer.

(Total for Question 25 is 3 marks)

10 Bronwin works in a restaurant.

The table gives her rates of pay.

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.

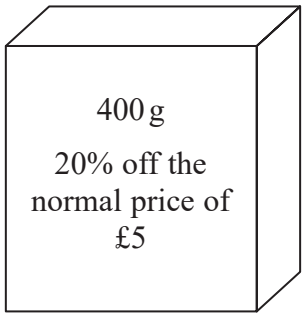
Show that Bronwin was paid less than £200 last week.

(Total for Question 10 is 3 marks)

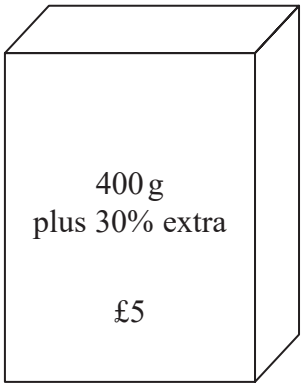
18 Food Mart and Jan's Store sell boxes of the same type of breakfast cereal.

Each shop has a special offer.

Food Mart



Jan's Store



Which box of cereal is the better value for money?
You must show your working.

(Total for Question 18 is 4 marks)

24 A plane travels at a speed of 213 miles per hour.

(a) Work out an estimate for the number of seconds the plane takes to travel 1 mile.

..... seconds
(3)

(b) Is your answer to part (a) an underestimate or an overestimate?
Give a reason for your answer.

.....

.....

(1)

(Total for Question 24 is 4 marks)

24 Lara is a skier.

She completed a ski race in 1 minute 54 seconds.
The race was 475 m in length.

Lara assumes that her average speed is the same for each race.

(a) Using this assumption, work out how long Lara should take to complete a 700 m race.
Give your answer in minutes and seconds.

..... minutes ..... seconds

(3)

Lara's average speed actually increases the further she goes.

(b) How does this affect your answer to part (a)?

.....

.....

(1)

(Total for Question 24 is 4 marks)

9 Ruth left her home at 9 am and walked to the library.
She got to the library at 10 30 am.
Ruth walked at a speed of 4 mph.

(a) Work out the distance Ruth walked.

..... miles
(2)

Ruth got to the library at 10 30 am.
She stayed at the library for 50 minutes.
Then she walked home.
Ruth took $1\frac{1}{4}$ hours to walk home.

(b) At what time did Ruth get home?

.....
(2)

(Total for Question 9 is 4 marks)

11 The table shows the costs of sending a parcel by the Express service and by the Rapid service.

Type of service	Cost
Express	£15.25
Rapid	£35.38

Brendan has to send 12 parcels.
It will be cheaper to send the parcels by the Express service than by the Rapid service.

(a) How much cheaper?

£.....

(3)

Luke wants to send 21 parcels by the Express service.

He does the calculation $20 \times £15 = £300$ to estimate the cost.

(b) Explain why Luke's calculation shows the actual cost will be more than £300

.....

.....

.....

(1)

(Total for Question 11 is 4 marks)

22 In October Sally drove 560 miles in her car.
The car travelled 34.5 miles for each gallon of petrol used.

Petrol cost £1.08 per litre.
1 gallon = 4.55 litres.

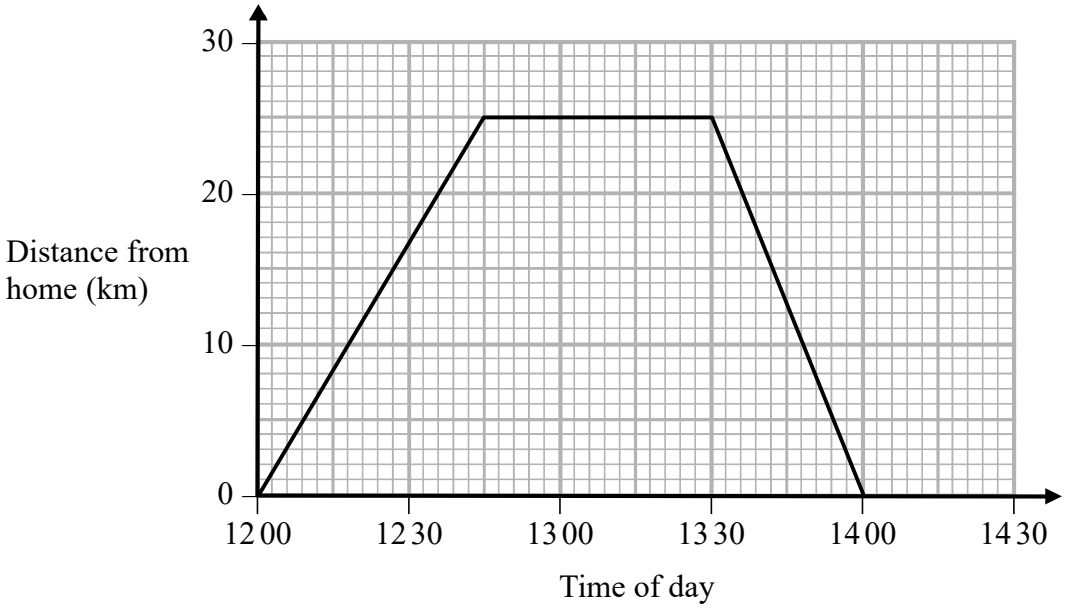
Work out the cost of the petrol the car used in October.

£.....

(Total for Question 22 is 4 marks)

16 Steve drove from his home to his friend's house.
He stayed at his friend's house and then drove home.

Here is Steve's travel graph.



(a) For how many minutes did Steve stay at his friend's house?

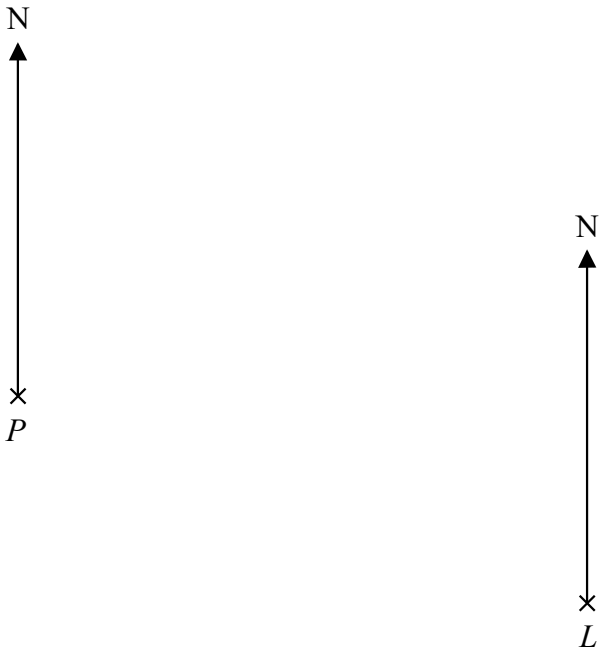
..... minutes
(1)

(b) What was Steve's average speed on his journey home?

..... km/h
(2)

(Total for Question 16 is 3 marks)

27 The accurate scale drawing shows the positions of port P and a lighthouse L.



Scale: 1 cm represents 4 km.

Aleena sails her boat from port P on a bearing of 070°

She sails for $1\frac{1}{2}$ hours at an average speed of 12 km/h to a port Q.

Find

(i) the distance, in km, of port Q from lighthouse L,

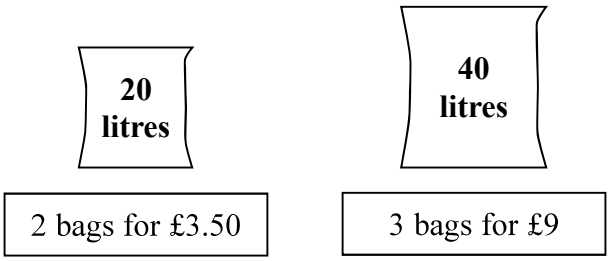
(ii) the bearing of port Q from lighthouse L.

distance QL = ... km

bearing of Q from L = ... °

(Total for Question 27 is 5 marks)

14 A shop sells compost in 20 litre bags and in 40 litre bags.
One day the shop had two special offers for the compost.



Which offer is the better value for money?
You must show how you get your answer.

(Total for Question 14 is 3 marks)

27 Nimer was driving to a hotel.
He looked at his Sat Nav at 13 30

Time	13 30
Distance to destination	65 miles

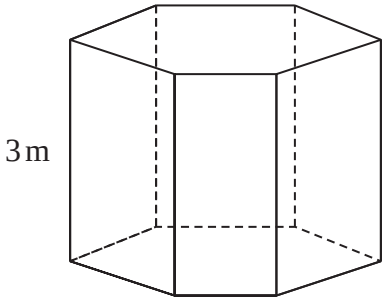
Nimer arrived at the hotel at 14 48

Work out the average speed of the car from 13 30 to 14 48
You must show all your working.

..... mph

(Total for Question 27 is 4 marks)

27 The diagram shows a prism placed on a horizontal floor.



$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

The prism has height 3 m
The volume of the prism is 18 m^3

The pressure on the floor due to the prism is 75 newtons/m^2

Work out the force exerted by the prism on the floor.

..... newtons

(Total for Question 27 is 3 marks)

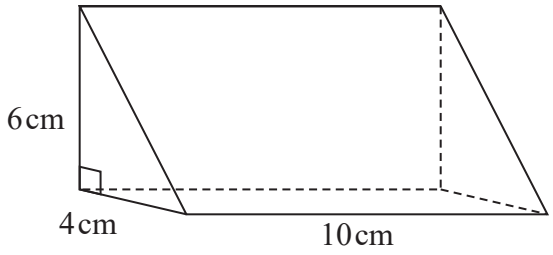
24 Andy cycles a distance of 30 km at an average speed of 24 km/h.
He then runs a distance of 12 km at an average speed of 8 km/h.

Work out the total time Andy takes.
Give your answer in hours and minutes.

..... hours ..... minutes

(Total for Question 24 is 3 marks)

29 The diagram shows a solid triangular prism.



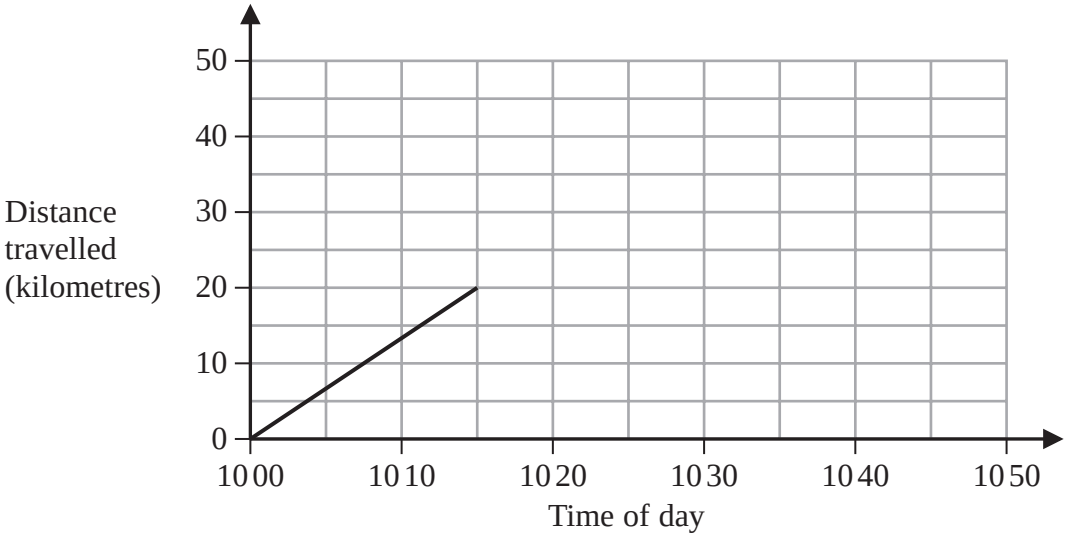
The prism is made from wood with a density of 0.8 g/cm³

Work out the mass of this prism.

..... g

(Total for Question 29 is 3 marks)

23 Sam drives his car on a journey.
Here is the travel graph for the first 15 minutes of his journey.



(a) Work out Sam's speed, in km/h, for the first 15 minutes of his journey.

..... km/h
(2)

At 10 15 Sam stops for 10 minutes and then drives for 20 minutes at a speed of 75 km/h.

(b) On the grid, complete the travel graph for Sam's journey.

(3)

(Total for Question 23 is 5 marks)

11 (a) Write 196 minutes in hours and minutes.

..... hours ..... minutes

(2)

A train travels x miles in 2 hours.

(b) Write down an expression, in terms of x, for the average speed of the train.

..... miles per hour

(1)

(Total for Question 11 is 3 marks)

24 A water tank is empty.
Anil needs to fill the tank with 2400 litres of water.

Company **A** supplies water at a rate of 8 litres in 1 minute 40 seconds.
Company **B** supplies water at a rate of 2.2 gallons per minute.

1 gallon = 4.54 litres

Company **A** would take more time to fill the tank than Company **B** would take to fill the tank.

How much more time?
Give your answer in minutes correct to the nearest minute.

..... minutes

(Total for Question 24 is 4 marks)

16 Savio leaves his home at 07 30 to drive to work.

He drives a distance of 50 miles.

Savio thinks he drives at an average speed of 40 miles per hour.

(a) If Savio is correct, at what time will he arrive at work?

.....

(3)

In fact, Savio's average speed was greater than 40 miles per hour.

(b) How does this affect your answer to part (a)?

.....

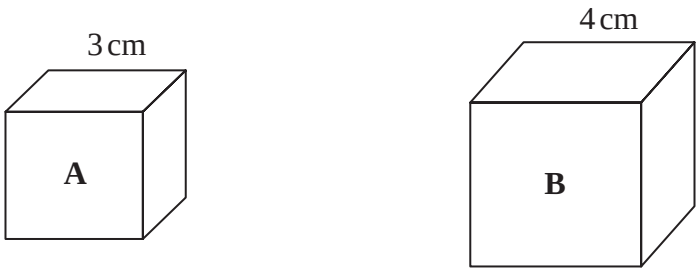
.....

.....

(1)

(Total for Question 16 is 4 marks)

29 Here are two cubes, **A** and **B**.



Cube **A** has a mass of 81 g.

Cube **B** has a mass of 128 g.

Work out

the density of cube **A** : the density of cube **B**

Give your answer in the form $a : b$, where a and b are integers.

.....

(Total for Question 29 is 3 marks)

Question 95

26 A new phone cost £679
The value of the phone decreases at a rate of 4% per year.

Work out the value of the phone at the end of 3 years.

£.....

(Total for Question 26 is 3 marks)

Question 96

27 In Spain, Sam pays 27 euros for 18 litres of petrol.
In Wales, Leo pays £40.80 for 8 gallons of the same type of petrol.

1 euro = £0.85
4.5 litres = 1 gallon

Sam thinks that petrol is cheaper in Spain than in Wales.

Is Sam correct?
You must show how you get your answer.

(Total for Question 27 is 4 marks)

Question 97

27 Jessica runs for 15 minutes at an average speed of 6 miles per hour.
She then runs for 40 minutes at an average speed of 9 miles per hour.

It takes Amy 45 minutes to run the same total distance that Jessica runs.

Work out Amy's average speed.
Give your answer in miles per hour.

..... miles per hour

(Total for Question 27 is 4 marks)

Question 98

29 Change 30 metres per second to kilometres per hour.

..... kilometres per hour

(Total for Question 29 is 2 marks)

14 Jenny drives from London to Swindon at an average speed of 54 miles per hour.

She drives for $1\frac{1}{2}$ hours.

(a) Work out the distance from London to Swindon.

..... miles

(2)

Aleksy is using a map.

The map has a scale of $1:25\,000$

On the map a road has a length of 6 cm.

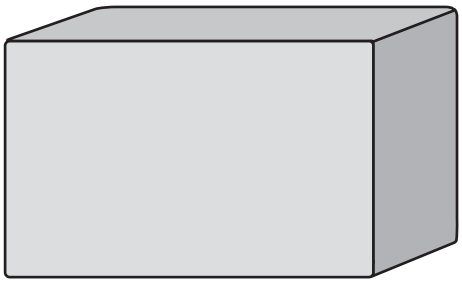
(b) Work out the length, in kilometres, of the real road.

..... kilometres

(3)

(Total for Question 14 is 5 marks)

25



$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

A storage tank exerts a force of 10 000 newtons on the ground.

The base of the tank in contact with the ground is a 4 m by 2 m rectangle.

Work out the pressure on the ground due to the tank.

..... newtons / m^2

(Total for Question 25 is 2 marks)

7 Myles writes down the distance readings from his car at the start and end of a journey.

Start of journey	1	2	4	6	8	miles
End of journey	1	2	8	4	5	miles

Myles knows that the cost of petrol for this journey is 13p per mile.

Work out the total cost of the petrol used for this journey.
Give your answer in pounds.

£.....

(Total for Question 7 is 4 marks)

13 A shop has two different special offers on milk.



75p

Pay for 2 bottles
get 1 bottle free



£1.28

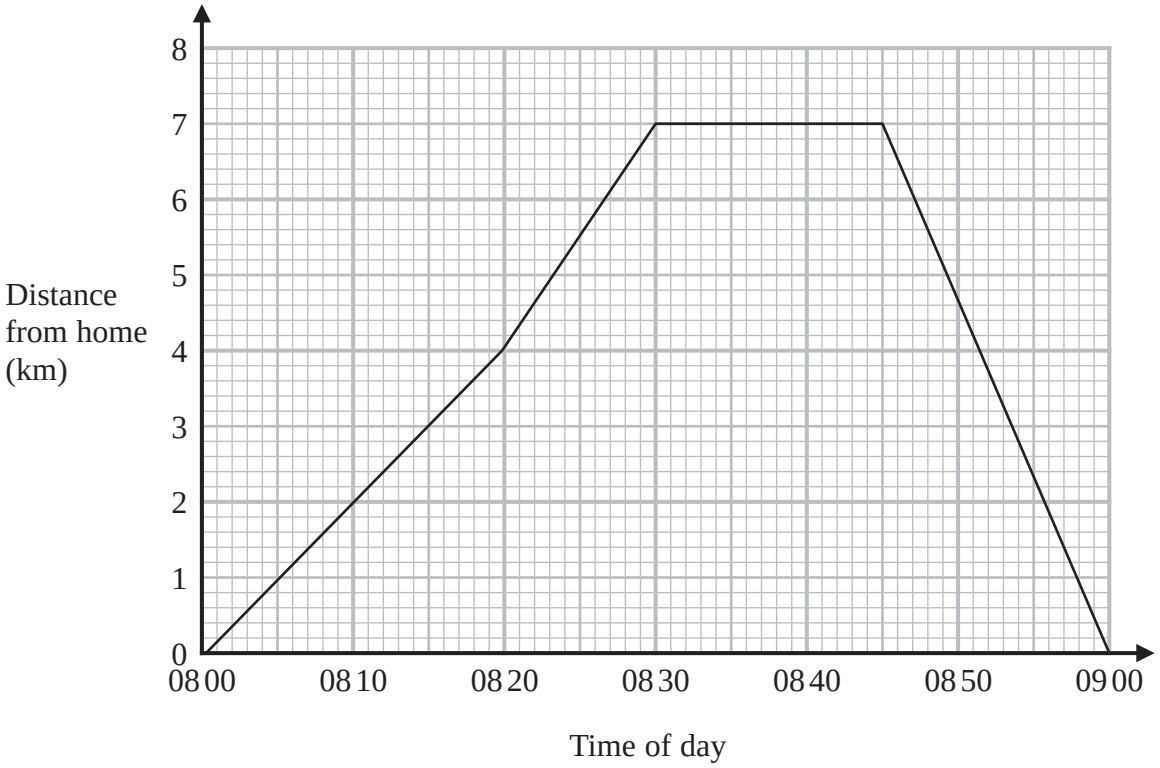
Pay for 1 bottle
get 1 bottle half price

Which offer gives the better value for money?
You must show how you get your answer.

(Total for Question 13 is 4 marks)

19 Carly cycles to her friend's house.
She stays at her friend's house for a number of minutes.
Then she cycles home.

Here is the travel graph for her journey.



(a) For how many minutes did Carly stay at her friend's house?

..... minutes
(1)

(b) How far is Carly from her home at 08 50?

..... km
(1)

(c) Work out Carly's speed, in km/h, for the first 20 minutes of her journey.

..... km/h
(2)

(Total for Question 19 is 4 marks)

27 (a) Change 8000 cm^3 to m^3

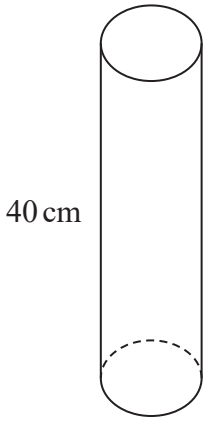
..... m^3
(1)

(b) Change a speed of 180 km per hour to metres per second.

..... metres per second
(3)

(Total for Question 27 is 4 marks)

27 The diagram shows a solid cylinder on a horizontal floor.



$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

The cylinder has a

volume of $1200\,\text{cm}^3$
height of 40 cm.

The cylinder exerts a force of 90 newtons on the floor.

Work out the pressure on the floor due to the cylinder.

..... newtons/cm^2

(Total for Question 27 is 3 marks)

Question 106

16 Paulo drives at an average speed of 56 km/h for 1 hour 45 minutes.

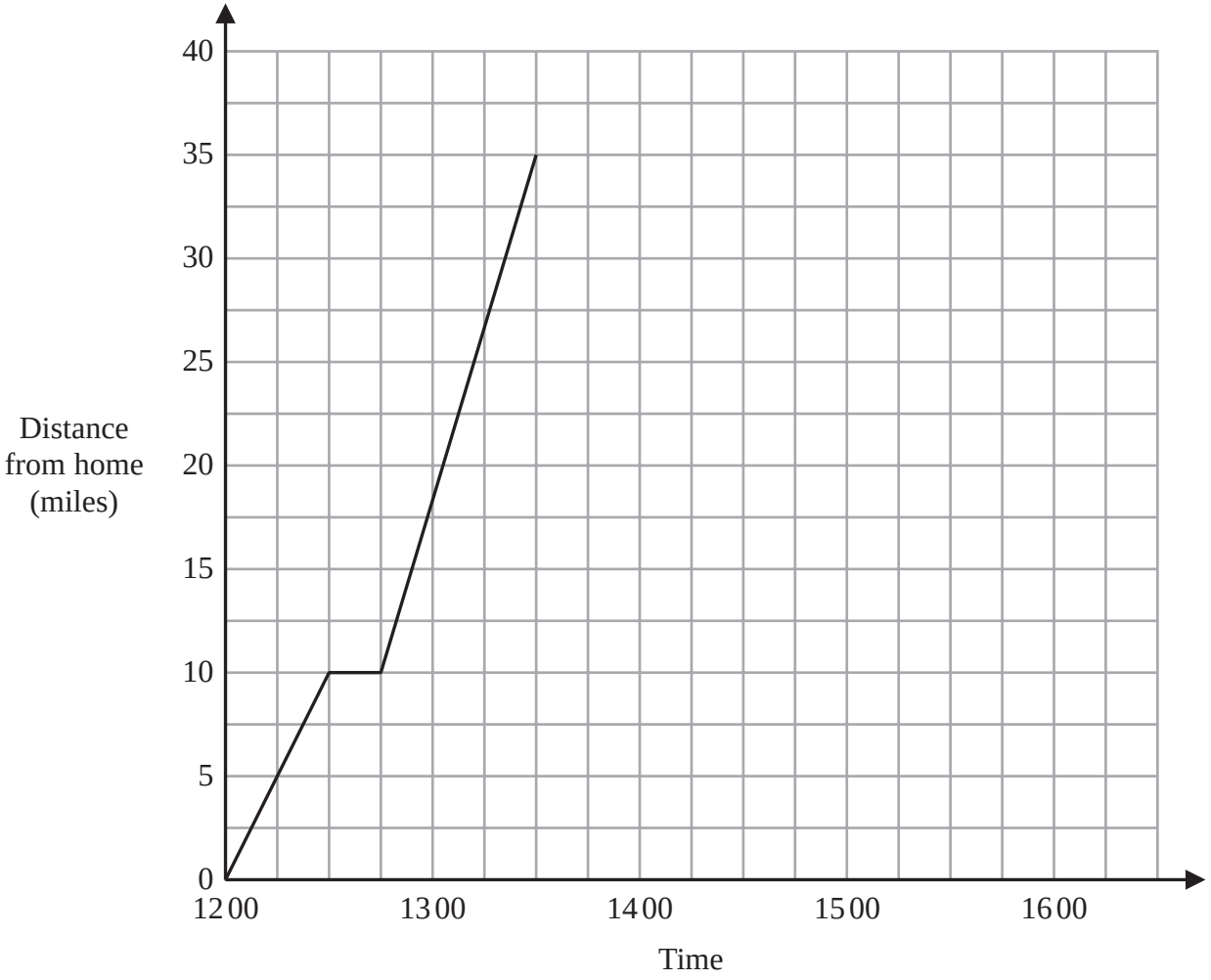
Work out the distance Paulo drives.

..... km

(Total for Question 16 is 3 marks)

13 Rowena drove from her home to a beach.

Here is a travel graph for her journey.



Rowena stopped at a cafe on her way to the beach.

(a) (i) How many minutes did Rowena take to drive to the cafe?

..... minutes
(1)

(ii) Write down the distance from Rowena's home to the cafe.

..... miles
(1)

Rowena stayed at the beach for $1\frac{1}{2}$ hours.

She then drove home without stopping.
Rowena arrived home at 16 00

(b) On the grid, complete the travel graph.

(2)

(c) Work out the average speed for the journey from the beach to Rowena's home.

..... miles per hour

(1)

(Total for Question 13 is 5 marks)

14 120 boxes cost £6
270 bags cost £10

A bag is cheaper than a box.

How much cheaper?
Give your answer in pence correct to 1 decimal place.

.....p

(Total for Question 14 is 4 marks)

25 Lava flows from a volcano at a constant rate of $11.9\,m^3/s$

How many days does it take for $67\,205\,600\,m^3$ of lava to flow from the volcano?
Give your answer correct to the nearest day.

..... days

(Total for Question 25 is 3 marks)

27 A solid cuboid is made of metal.

The metal has a density of $9\,g/cm^3$
The volume of the cuboid is $72\,cm^3$

Work out the mass of the cuboid.

..... g

(Total for Question 27 is 2 marks)

Question 111

25 A piece of glass has a mass of 27 g and a volume of 10 cm^3

Work out the density of the piece of glass.

..... g/cm^3

(Total for Question 25 is 2 marks)

Question 112

6 Lydia works for 4 hours.
She is paid £50

How much is Lydia paid per hour?

£.....

(Total for Question 6 is 2 marks)

Question 113

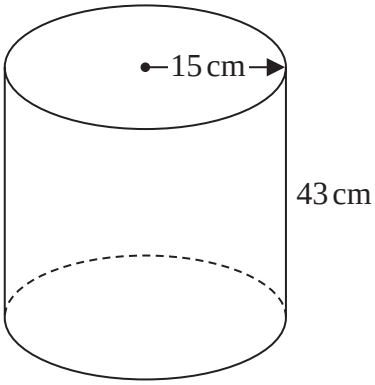
12 A car travels at an average speed of 37 miles per hour for 3 hours.

Work out the distance that the car travels in the 3 hours.

..... miles

(Total for Question 12 is 2 marks)

28 The diagram shows an empty tank in the shape of a cylinder.



The cylinder has radius 15 cm and height 43 cm.

Water flows into the tank at a rate of 0.47 litres per minute.

Calculate the number of minutes it will take to completely fill the tank.
Give your answer correct to the nearest minute.

..... minutes

(Total for Question 28 is 4 marks)

17 Blake works 32 hours a week in the UK.
She is paid £473.28 per week.

Blake applies for a job in Australia.
The rate of pay is 26.40 Australian dollars per hour.

£1 = 1.796 Australian dollars

Blake thinks the rate of pay in Australia is greater than the rate of pay in the UK.

Is Blake correct?
You must show how you get your answer.

(Total for Question 17 is 3 marks)

26 Riley travelled by car and by aeroplane.

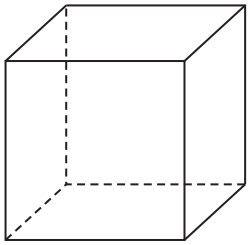
He travelled 143 miles by car at an average speed of 55 miles per hour.
Riley then travelled for 5 hours and 20 minutes by aeroplane.

Work out, in hours and minutes, Riley's total travelling time.

..... hours ..... minutes

(Total for Question 26 is 3 marks)

27 The diagram shows a solid cube placed on a horizontal table.



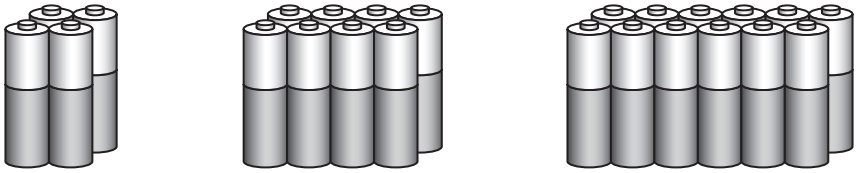
$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

The pressure on the table due to the cube is 3.5 newtons/cm^2
The force exerted by the cube on the table is 504 newtons.

Show that the total surface area of the cube is less than 900 cm^2

(Total for Question 27 is 3 marks)

16 Batteries are sold in packs of 4, in packs of 8 and in packs of 12



£1.80 £3.20 £6.00

A pack of 4 batteries costs £1.80
A pack of 8 batteries costs £3.20
A pack of 12 batteries costs £6.00

Which pack gives the best value for money?
You must show how you get your answer.

(Total for Question 16 is 3 marks)

14 On Monday, Lizzie cycled 36 kilometres in 3 hours.

(a) Work out Lizzie's average speed.

..... kilometres per hour
(2)

On Tuesday, Lizzie cycled 36 kilometres at an average speed of 16 kilometres per hour.

Lizzie says that the total time she cycled on Monday and Tuesday was less than 5 hours 20 minutes.

(b) Is Lizzie correct?
You must show how you get your answer.

(3)

(Total for Question 14 is 5 marks)

9 Lucia is going on a skiing holiday.

The cost of ski hire is £26 per day.
The cost of a lift pass is £45 per day.
The cost of ski lessons is £23.50 per hour.

Lucia will pay for
ski hire for 5 days
a lift pass for 4 days
ski lessons for 8 hours.

Lucia has £500

Show that Lucia has enough money to pay for the total cost of ski hire, the lift pass and the ski lessons.

(Total for Question 9 is 3 marks)

25 A company has 25 000 workers.
The number of workers increases at a rate of 6% per year for 3 years.

Calculate the total number of workers at the end of the 3 years.

.....

(Total for Question 25 is 4 marks)

26 Habib has two identical tins.

He puts 600 grams of flour into one of the tins.
The flour fills the tin completely.
The density of the flour is $0.6\,g/cm^3$

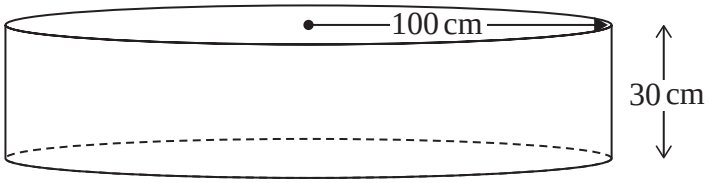
Habib puts 600 grams of salt into the other tin.
The salt does **not** fill the tin completely.
The volume of the space in the tin that is **not** filled with salt is $700\,cm^3$

Work out the density of the salt.
You must show all your working.

..... g/cm^3

(Total for Question 26 is 4 marks)

28 A paddling pool is in the shape of a cylinder.



The pool has radius 100 cm.
The pool has depth 30 cm.

The pool is empty.
It is then filled with water at a rate of 250 cm^3 per second.

Work out the number of minutes it takes to fill the pool completely.
Give your answer correct to the nearest minute.
You must show all your working.

..... minutes

(Total for Question 28 is 4 marks)

22 A car travelled 4.96 miles at an average speed of 30.4 miles per hour.

(a) Work out an estimate for the time taken by the car.
Give your answer in minutes.

..... minutes
(3)

(b) Is your answer to part (a) an underestimate or an overestimate?
Give a reason for your answer.

.....

.....

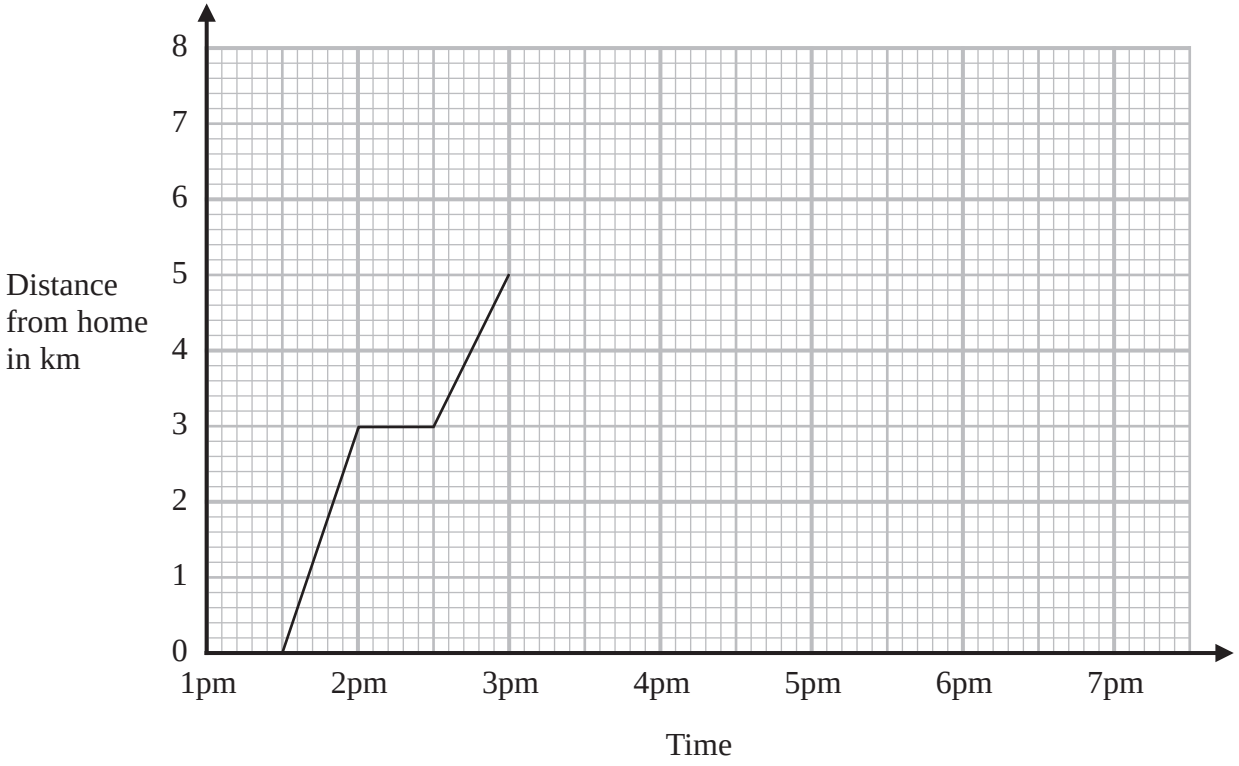
.....

(1)

(Total for Question 22 is 4 marks)

14 Amy walked from her home to the skate park.

The travel graph of Amy's walk to the skate park is shown below.



On the way to the skate park Amy stopped at her friend's house.

(a) How far is it from her friend's house to the skate park?

..... km

(1)

Amy stayed at the skate park for 2 hours.
Then she walked home at a steady speed.
She took 1 hour 30 minutes to walk home.

(b) Complete the travel graph.

(2)

(Total for Question 14 is 3 marks)

22

Choci bar
200 g
£3.50

London

Choci bar
360 g
7.20 Swiss francs

Zurich

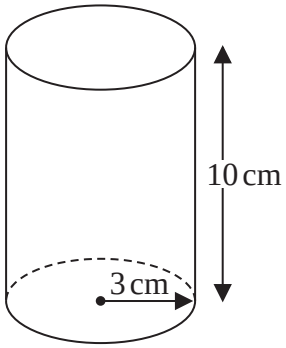
In London, a 200 g Choci bar costs £3.50
In Zurich, a 360 g Choci bar costs 7.20 Swiss francs.

The exchange rate is £1 = 1.25 Swiss francs.

In which city is the Choci bar the better value for money, in London or in Zurich?
You must show how you get your answer.

(Total for Question 22 is 3 marks)

28 The diagram shows a solid cylinder with base radius 3 cm and height 10 cm.



The cylinder is made from steel.
It has a mass of 2250 g.

Work out the density of the steel.
Give your answer correct to 3 significant figures.

..... g/cm^3

(Total for Question 28 is 3 marks)

14 Harry works in a shop.
From Monday to Friday his basic rate of pay is £8 per hour.

On Saturday and Sunday, Harry's rate of pay is $1\frac{1}{2}$ times his basic rate of pay.

The table shows the number of hours Harry worked each day last week.

Day	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Hours worked	6	6	6	6	6	4	3

Work out Harry's total pay last week.

£.....

(Total for Question 14 is 4 marks)

11 Jamie drives his van for 150 minutes.
He stops for a rest.

Jamie then drives for a further 75 minutes.

(a) Show that Jamie drives for less than 4 hours in total.

(2)

A car travels for 2 hours at a steady speed of 65 mph.

(b) Work out the distance the car travels.

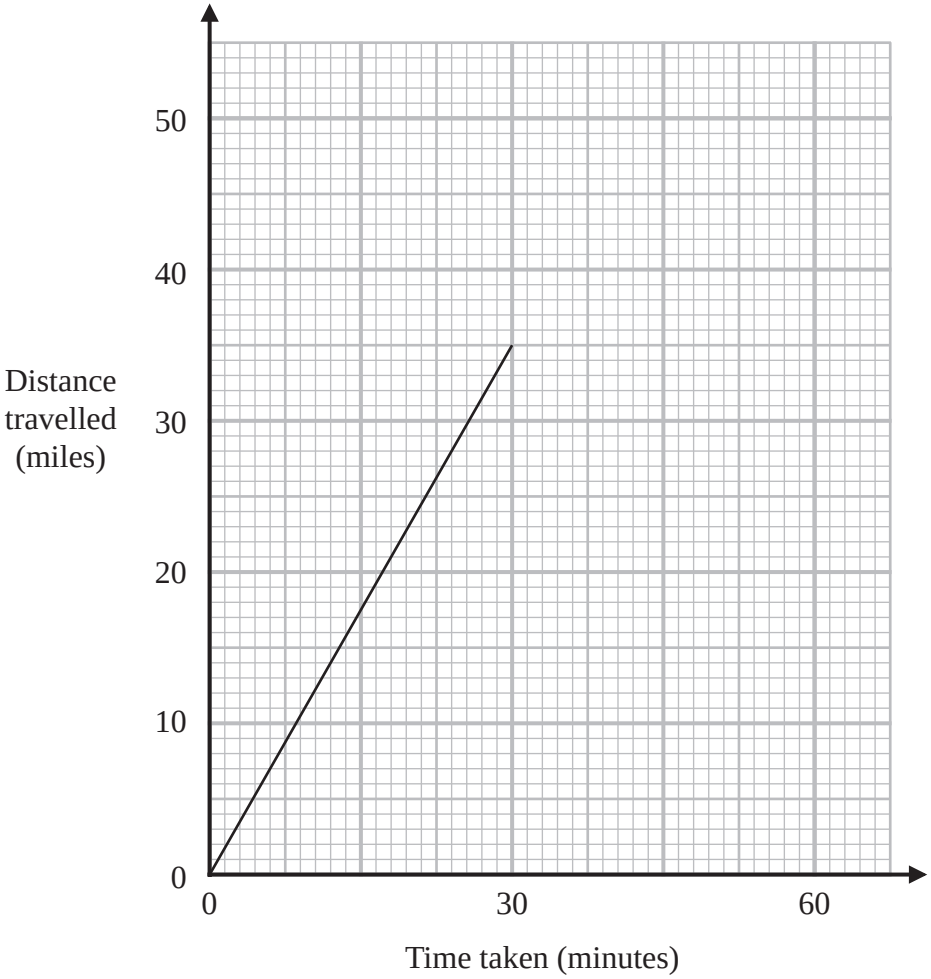
..... miles

(2)

(Total for Question 11 is 4 marks)

16 A train travels from Derby to Sheffield.

The travel graph shows information about the train's journey.



(a) Work out the speed of the train.
Give your answer in miles per hour.

..... miles per hour
(2)

The train stays at Sheffield for 15 minutes.

(b) Show this information on the travel graph.

(1)

(Total for Question 16 is 3 marks)

27 Metal rods are made from steel with density $8\,g/cm^3$
Each metal rod has a volume of $1500\,cm^3$

The maximum mass of metal rods that can be put on a trolley is 300 kg.

Work out the greatest number of metal rods that can be put on the trolley.

.....

(Total for Question 27 is 3 marks)

25 In London, 2 kg of carrots cost £3.75
In New York, 5 lbs of carrots cost 4.90 US dollars.

£1 = 1.20 US dollars
1 kg = 2.2 lbs

In which city are carrots better value for money, London or New York?
You must show how you get your answer.

(Total for Question 25 is 4 marks)

27 A plane takes 2 hours 24 minutes to fly from Luton to Alicante.
The plane flies a distance of 1512 kilometres.

Work out the average speed of the plane.
Give your answer in kilometres per hour.

..... kilometres per hour

(Total for Question 27 is 3 marks)