



Pocklington School 11+ Mathematics 2024 – Sample 1

1 Hour

Name	
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- Calculators are not allowed
- Write your answers in the spaces provided
- Show all working in the spaces provided

Q1.

(a) Work out $27 + 38$

.....
(1)

(b) Work out $202 - 75$

.....
(1)

(c) Work out $2 \times 3 \times 5$

.....
(1)

(Total for Question is 3 marks)

Q2.

Here are some prices in a café.

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?

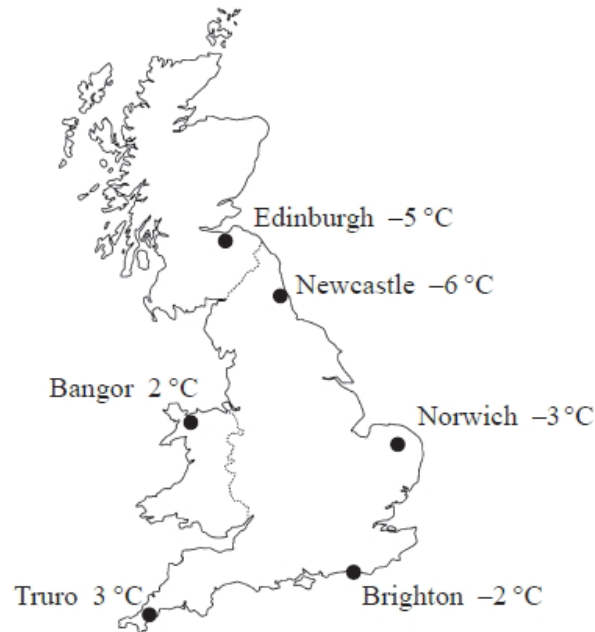
You must show how you get your answer.

(Total for Question is 3 marks)

Q3.

Here is a map of Great Britain.

The map shows the temperatures in some cities at midnight on 20th January.



(a) Which city had the lowest temperature at midnight?

.....
(1)

In Brighton, the temperature rose by 5°C between midnight on 20th January and midday on 21st January.

(b) What was the temperature in Brighton at midday on 21st January?

..... °C
(1)

At midnight on 20th January, the temperature in Nottingham was halfway between the temperature in Truro and the temperature in Edinburgh.

(c) What was the temperature in Nottingham?

..... °C
(2)

Q4.

(a) Work out the value of $5 \times 2 + 8$

.....
(1)

(b) Work out the value of $(13 - 6) \times 2$

.....
(1)

(Total for Question is 2 marks)

Q5.

Work out $\frac{3}{8} + \frac{1}{2}$

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

Q6.

(a) Write $\frac{3}{4}$ as a decimal.

.....
(1)

(b) Write 0.3 as a fraction.

.....
(1)

Q7.

Write the following numbers in order of size.

Start with the smallest number.

0.4

0.02

0.37

0.152

0.2

.....

(Total for Question is 1 mark)

Q8.

Write down the value of the 7 in the number 8765

.....

(Total for Question is 1 mark)

Q9.

(a) Write the number **five thousand nine hundred and six** in figures.

.....

(1)

(b) Write the number 7162 to the nearest hundred.

.....

(1)

(c) Write the number 27.53 to the nearest whole number.

.....

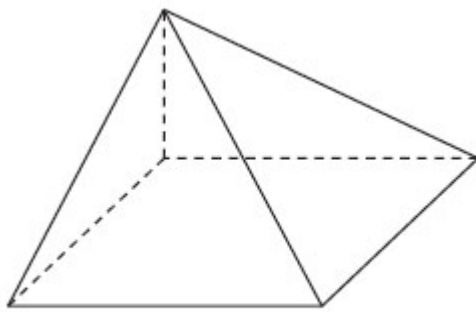
(1)

Q10.

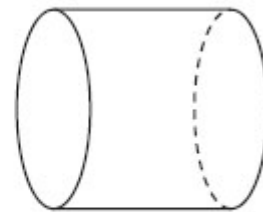
In the space below, draw a hexagon.

Q11.

Here are two 3-D shapes.



Shape A



Shape B

(Total for Question is 1 mark)

(a) Write down the mathematical name of

(i) Shape A,

.....

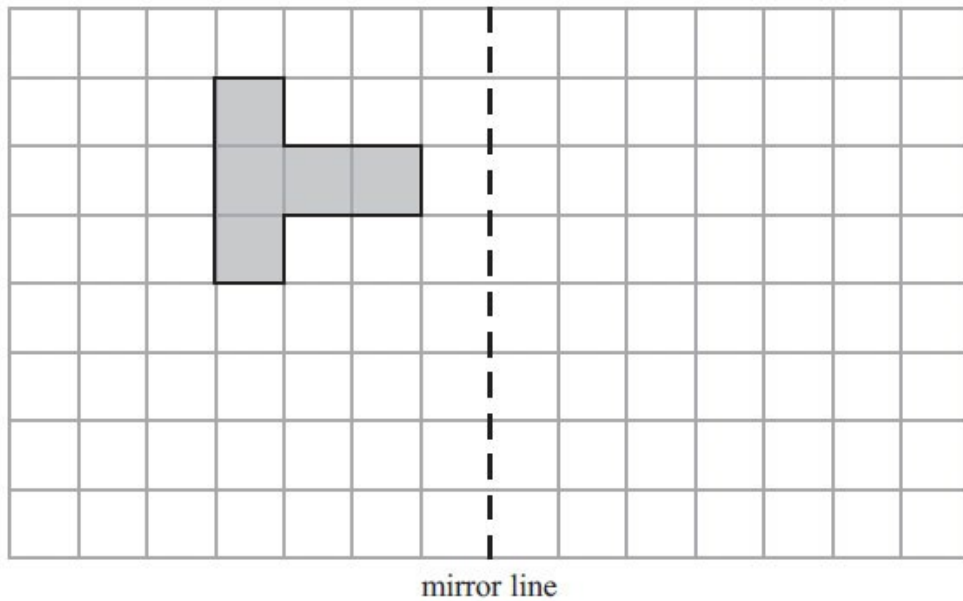
(ii) Shape B.

.....

(2)

Q12.

Reflect the shaded shape in the mirror line.



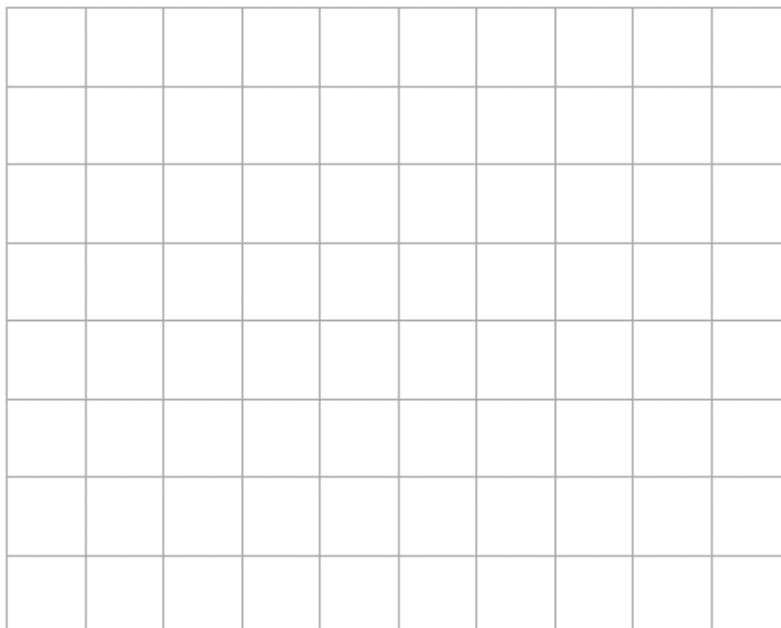
(Total for Question is 2 marks)

Q13.

The length of a rectangle is twice as long as the width of the rectangle.

The area of the rectangle is 32 cm^2 .

Draw the rectangle on the centimetre grid.



(Total for Question is 2 marks)

Q14.

Peter writes down the following

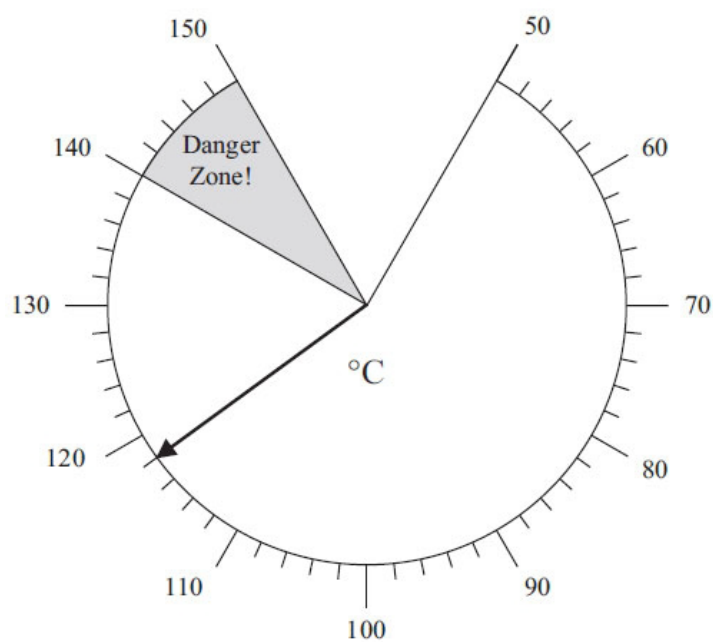
$$160.5 \div 4 = 120.3$$

Without doing the exact calculation, explain why Peter's answer cannot be correct.

.....
.....

(Total for question is 1 mark)

Q15.



The diagram shows a temperature gauge.

How many degrees does the temperature have to rise to get to the danger zone?

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

Q16.

(a) Convert 1300 ml to litres

.....
(1)

(b) Convert 1.3cm to m

.....
(1)

Q17.

A film starts at 1830

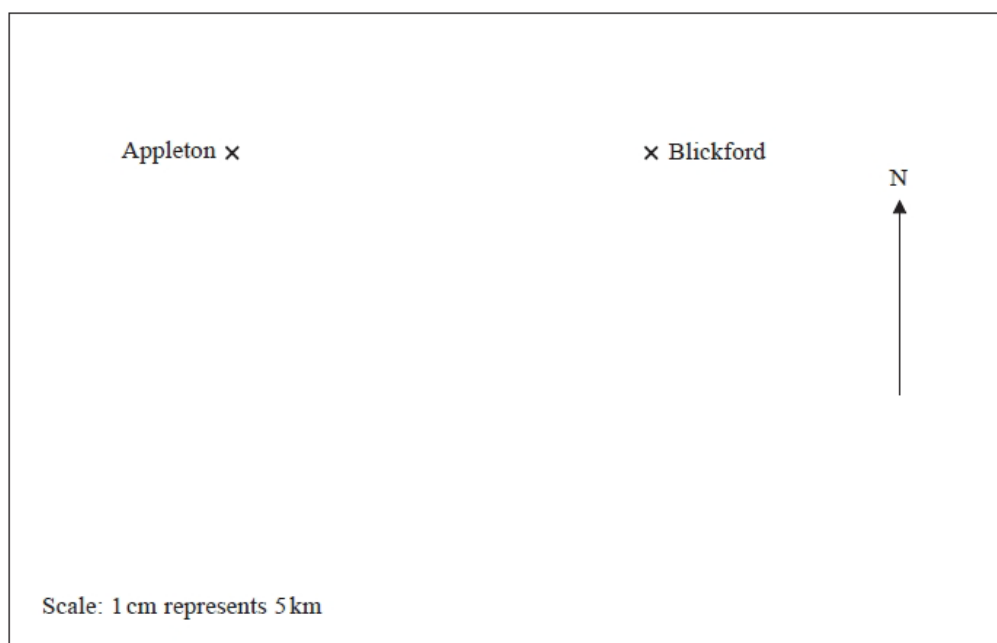
The film ends at 2050

How long does the film last?

.....
(2)

Q18.

Here is part of an accurately drawn map showing two towns, Appleton and Blickford.

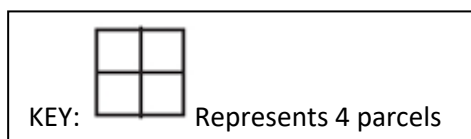















Find, in kilometres, the real distance between Appleton and Blickford.

..... km
(2)

Q19.

The pictogram shows the numbers of parcels delivered to some houses on Monday, Tuesday and Wednesday.



Monday	   
Tuesday	    
Wednesday	   
Thursday	
Friday	

(a) Write down the number of parcels delivered on Tuesday.

.....
(1)

(b) Write down the number of parcels delivered on Wednesday.

.....
(1)

24 parcels were delivered on Thursday.

18 parcels were delivered on Friday.

(c) Use this information to complete the pictogram.

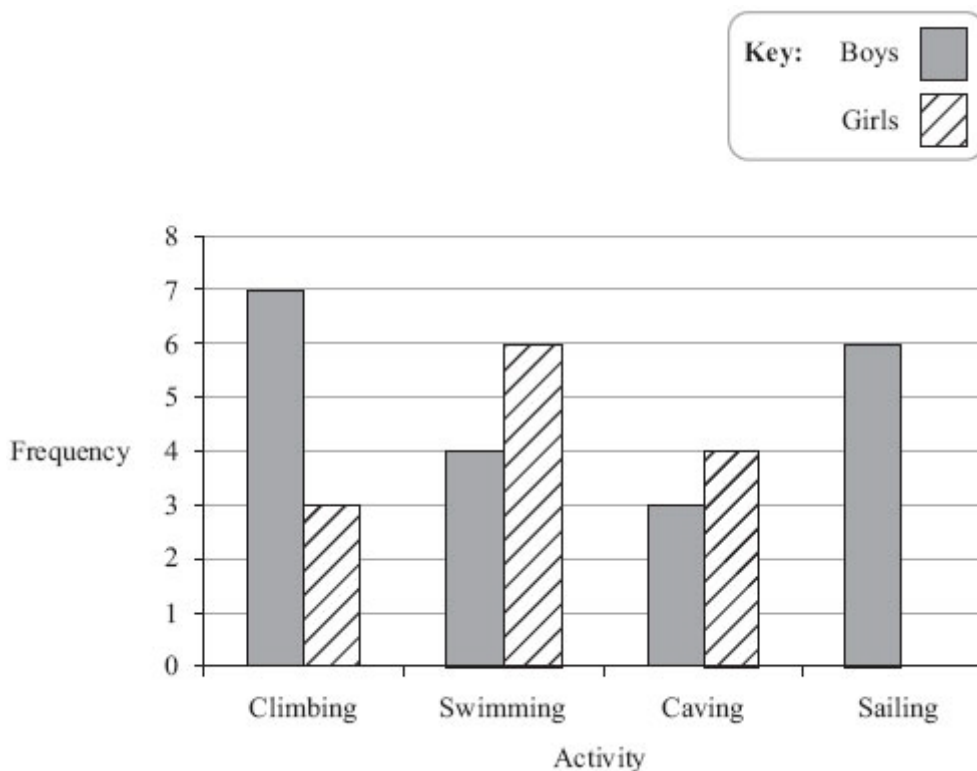
(2)
(Total for Question is 4 marks)

Q20.

A teacher took some students on an Outdoor Activity trip.

Each student chose one activity to do.

The bar chart shows some information about the activities chosen.



(a) Which activity did most boys choose?

.....
(1)

(b) How many boys went on the Outdoor Activity trip?

.....
(2)

7 girls went sailing.

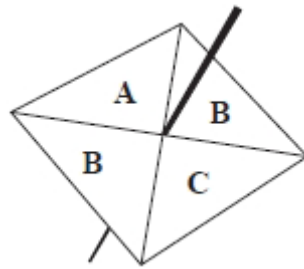
(c) Complete the bar chart.

(1)

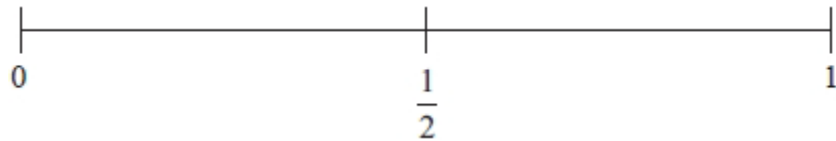
(Total for Question is 4 marks)

Q21.

Sammy spins a fair 4-sided spinner.

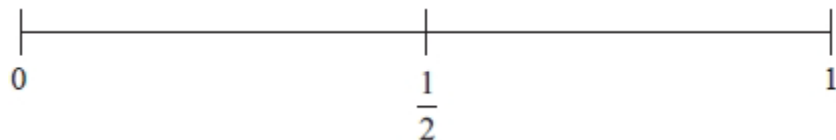


- (a) On the probability scale, mark with a cross (×) the probability that the spinner will land on **B**.



(1)

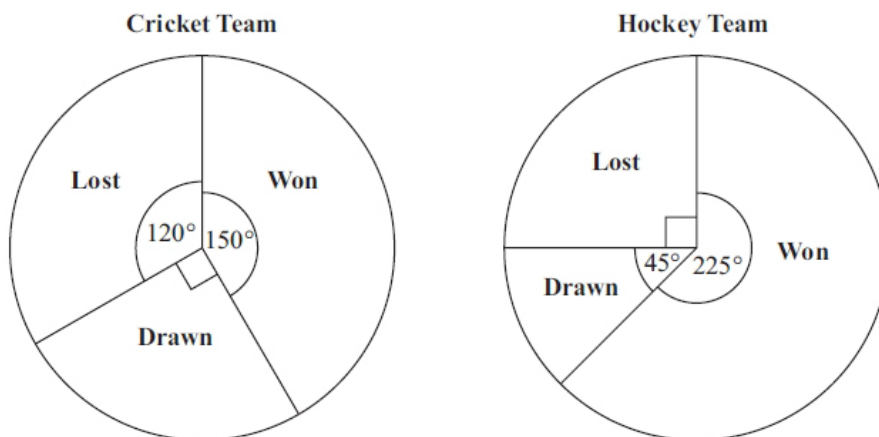
- (b) On the probability scale, mark with a cross (×) the probability that the spinner will land on F.



(1)

Q22.

The pie charts show some information about the numbers of matches won, drawn and lost by a cricket team and by a hockey team last year.



The cricket team won 15 matches.

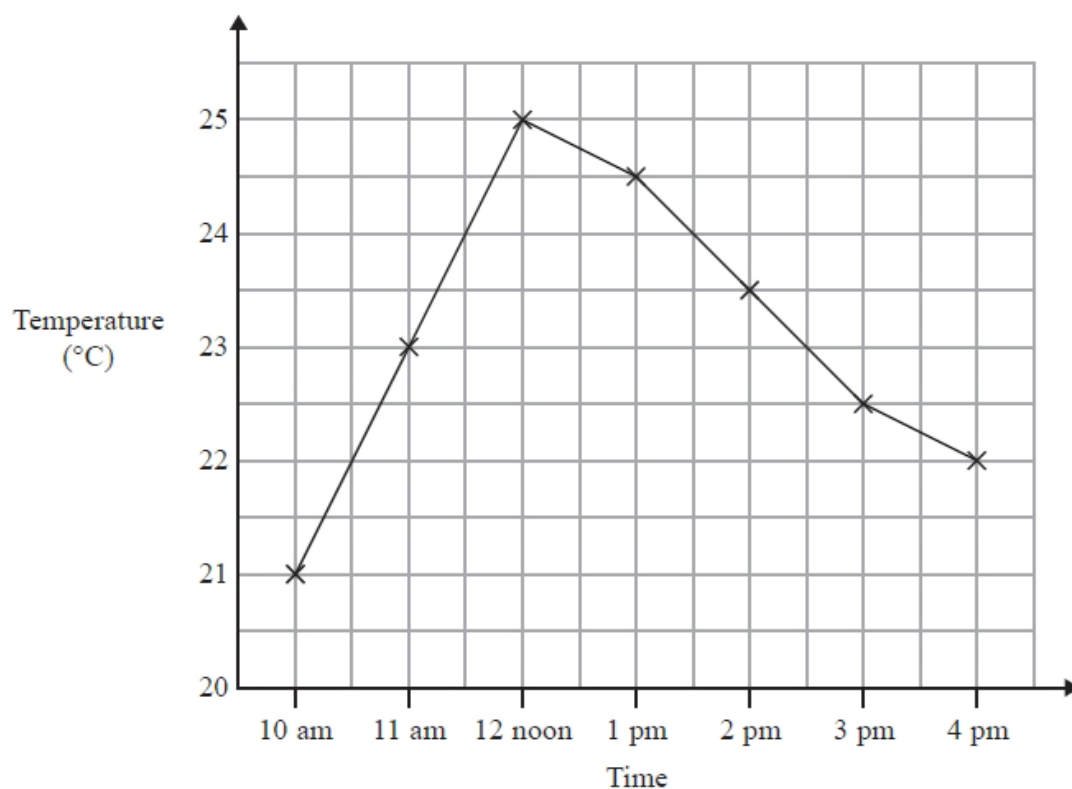
How many matches did the cricket team lose?

.....
(2)

(Total for Question is 4 marks)

Q23.

Beth recorded the temperature, in degrees ($^{\circ}\text{C}$), inside her greenhouse every hour on one day. The graph shows information about her results.



(a) Write down the temperature at 11 am.

..... $^{\circ}\text{C}$
(1)

(b) Write down the highest recorded temperature.

..... $^{\circ}\text{C}$
(1)

(c) Describe the change in temperature from 12 noon to 4 pm.

.....
.....
(1)

(Total for Question is 4 marks)

Q24.

The diagram shows a rectangle and a square.

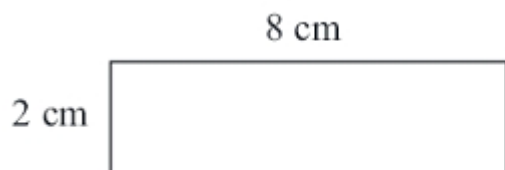


Diagram **NOT**
accurately drawn

The perimeter of the rectangle is the same as the perimeter of the square.

Work out the length of one side of the square.

..... cm

(Total for Question is 4 marks)

Q25.

(a) Solve $t + 5 = 20$

$t =$

(1)

(b) Solve $4y = 36$

$y =$

(1)

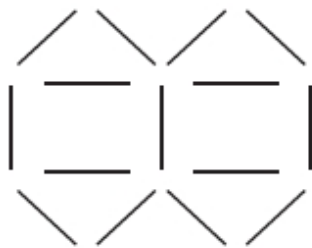
(Total for Question is 2 marks)

Q26.

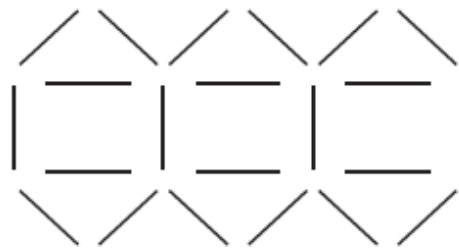
Here is a sequence of patterns made from sticks.



pattern number 1



pattern number 2



pattern number 3

(a) In the space below, draw pattern number 4

(1)

(b) How many sticks are needed for pattern number 10?

(1)

(Total for Question is 2 marks)

Q27.

Here are the prices of drinks and snacks in a cafe.

Drinks		Snacks	
tea	50p	cheese roll	£1.20
coffee	60p	samosa	£1.10
lemonade	40p	hot dog	£1.40
		baked potato	£1.60

Barry buys a tea, a hot dog and a cheese roll.

(a) Work out the total cost.

£

(2)

Naomi buys a drink and a snack.

She pays with 3 pound coins.

She gets 80p change.

(b) Which drink and which snack did Naomi buy?

..... and

(3)

(Total for Question is 5 marks)

THE QUESTIONS ON THE NEXT PAGES ARE DESIGNED TO BE MORE CHALLENGING AND YOU MAY NOT HAVE TIME TO FINISH THEM

E1.

Norman sells the same type of potatoes in bags of different weights.

Potatoes	Potatoes
500 g	2 kg
48p	£1.65

Norman says the 500 g bags of potatoes give the best value for money.

(a) Is Norman correct?

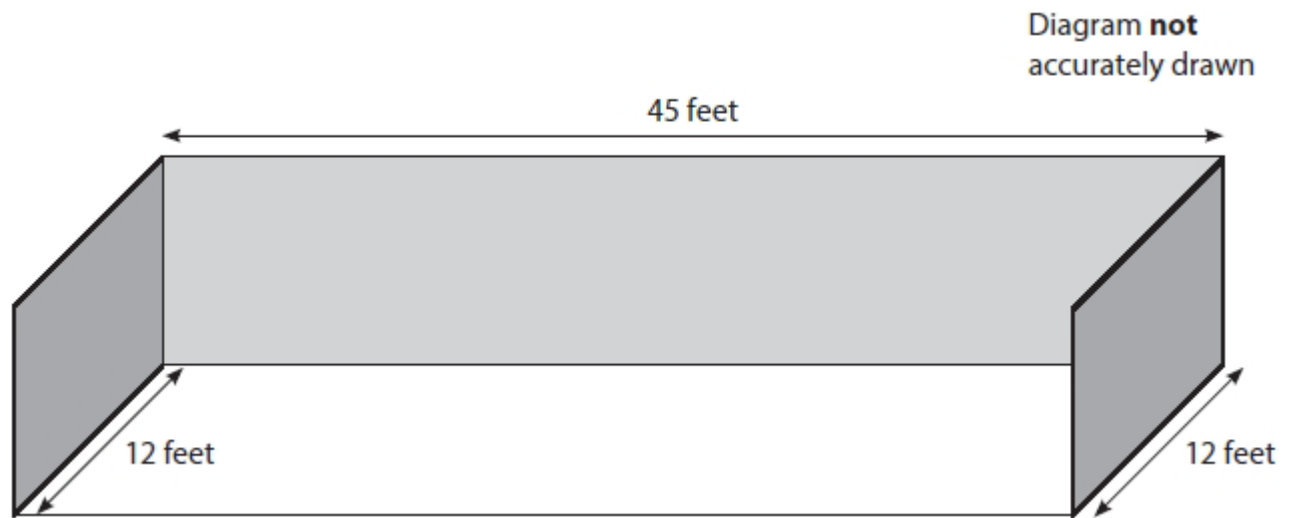
Show why you think this.

Show a check of your working.

(5)

Use the space below to show clearly how you get your answer.

Norman is going to put mirror strips around 3 sides of his display shelf.
His display shelf has 1 side of length 45 feet and 2 sides each of length 12 feet.



The mirror strips are all of length 3 feet.

Norman buys 25 mirror strips.

(b) Does Norman have enough mirror strips to go around all 3 sides of the shelf?

(3)

Use the space below to show clearly how you get your answer.

(Total for Question is 8 marks)

E2.

Kyle needs to buy some floor cleaning fluid.

He finds these two offers.

Offer A

Pack of 6 bottles
each bottle 1 litre

Normal price £13 each pack
Now half price

Offer B

Pack of 8 bottles
each bottle 1 litre

Special price £9 each pack

Kyle wants to buy 24 bottles of the cleaning fluid.

He wants to spend as little as possible.

Which offer should Kyle choose?

(5)

Use the space below to show clearly how you get your answer.

(Total for Question is 5 marks)

E3.

Reece goes to see a film at the cinema.

He wants to buy a large drink and a large popcorn. Reece sees this price list and a special offer.

Price list			
	small	medium	large
drink	£1.99	£2.99	£3.99
popcorn	£2.49	£3.49	£4.49

Special offer!	
Get a large drink and a large popcorn for £7.50	

- (a) How much will Reece save using the special offer to buy his large drink and large popcorn?
Show a check of your working.

(4)

Use the space below to show clearly how you get your answer.

Reece wants to know what time he will get to the bus stop after the film finishes. The film

- starts at 3.30 pm
- lasts for 135 minutes.

It will take Reece 10 minutes to get to the bus stop from when the film finishes.

Reece thinks he will get to the bus stop at 5.50 pm.

- (b) Is Reece correct?

Show why you think this.

(4)

Use the space below to show clearly how you get your answer.

(Total for Question is 8 marks)

END OF QUESTIONS