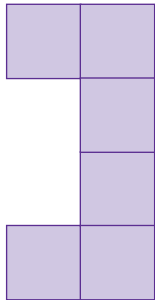


1

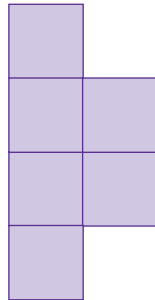
Which of these shows the net of a cube?

Circle the correct letter.

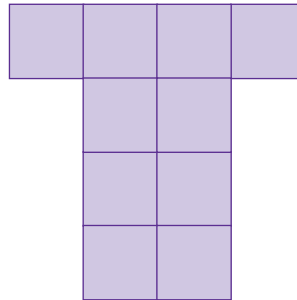
(1 mark)



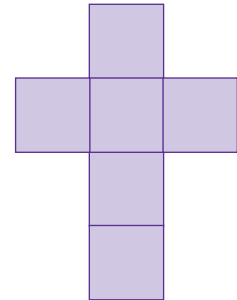
A



B



C



D

2

Using the scale, what is the distance between points A and B, in miles?

1km = 0.62 miles

Scale
2cm:5km



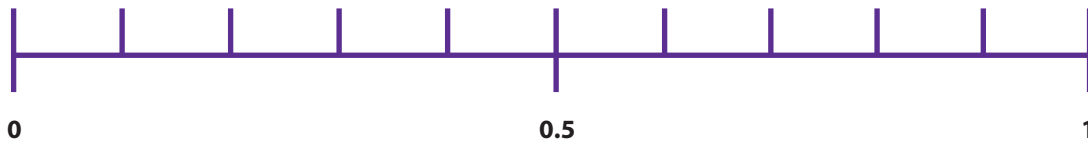
Show your working out and write the answer in the box below.

(3 marks)

Answer: _____ miles

3

Put an X on the scale to show $\frac{14}{20}$.



Show your working out in the box below.

(2 marks)

4

Put these fractions in order of size.

Start with the smallest.

$$\frac{3}{8}$$

$$\frac{1}{2}$$

$$\frac{1}{4}$$

$$\frac{5}{16}$$

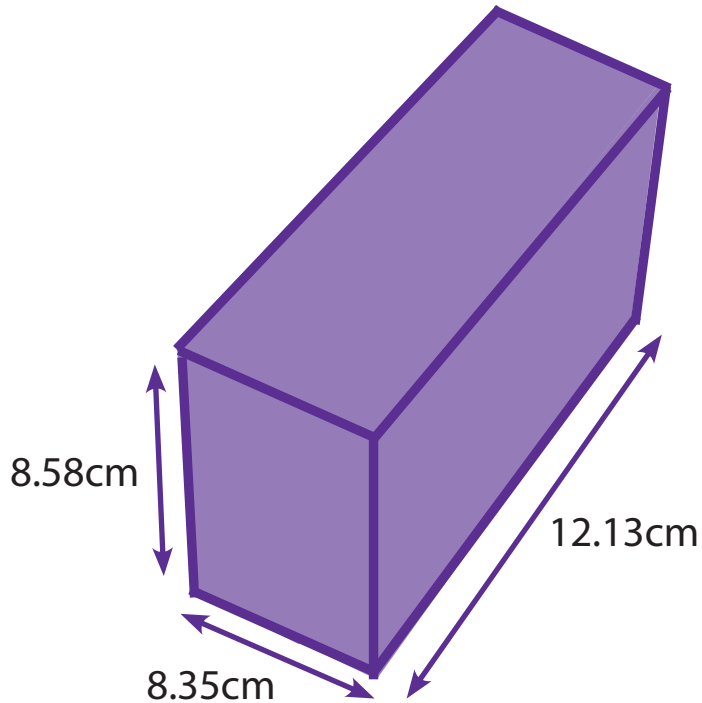
Write your answer in the box below.

(1 mark)

Answer: _____

5

Work out the volume of this cuboid. State the correct units in your answer:



Show your working and write your answer, including units, in the box below.

(3 marks)

Answer: _____

6

Sarah and Ali share £352 in the ratio 1:3

How much is Sarah's share?

Write the answer in the box below.

(1 mark)

Answer: £ _____

Scenario A

You are planning a holiday to Spain.

7

You and your friend Josh are planning the journey to the airport.

You are going to get a taxi from your home to Lancaster and then a train from Lancaster to Highfield Airport Station.

The taxi journey from your home to Lancaster is 16 miles. The taxi drives at an average speed of 40 mph.

You use this formula to calculate the time, in hours (T), that it takes the taxi to drive from your home to Lancaster:

$$T = \text{distance (miles)} \div \text{speed (mph)}$$

This is the timetable for trains from Lancaster to Highfield Airport Station.

TRAINS FROM LANCASTER TO HIGHFIELD AIRPORT STATION				
DEPART LANCASTER	9.30	11.45	12.05	13.15
ARRIVE HIGHFIELD AIRPORT STATION	10.35	12.50	13.10	14.45

You need to arrive at Highfield Airport Station by 13:30 and would like to arrive as close as possible to this time.

Complete the following table to show when to leave home and the details of your journey.

Show your working out in the box on the following page.

(5 marks)

Time	Action
	Leave home (taxi to station)
	Arrive at Lancaster
	Depart from Lancaster
	Arrive at Highfield Airport Station

Working out:

8

These are the temperatures for the last 7 days at your holiday hotel:

Date	1st May	2nd May	3rd May	4th May	5th May	6th May	7th May
Maximum temperature	25°	28°	26°	29°	32°	35°	31°

Calculate the mean maximum temperature for the last 7 days.

Show your working and write your answer in the box below.

(2 marks)

Answer: _____

9

There are 2 different waterparks near your hotel.
You and Josh both have the following leaflets:

Water World
€36 per person



1/3 off per person
with this leaflet

Water Kingdom
€39 per person
30% off per person
with this leaflet



The exchange rate is:

$$£1 = €1.12$$

How much less is it for you both to go to the cheaper waterpark than go to the more expensive waterpark? Give your answer in pounds sterling (£).

Show your working out and write the answer in the box below.

(6 marks)

Answer: £ _____

10

You visit a restaurant that is holding a raffle with a cash prize. A free ticket is given to each of the 40 people in the restaurant including you and Josh.

You meet Raj and Petrina in the restaurant. They suggest that you and Josh share your raffle tickets with them and share the prize equally if you win.

Calculate the probability of winning:

- a) with Josh
- b) with Josh, Raj and Petrina

Give your answers as **fractions** and **decimals**.

Show your working out and write the answers in the box below.

(4 marks)

	Fractions:
With Josh _____	
With Josh, Raj and Petrina _____	
	Decimals:
With Josh _____	
With Josh, Raj and Petrina _____	

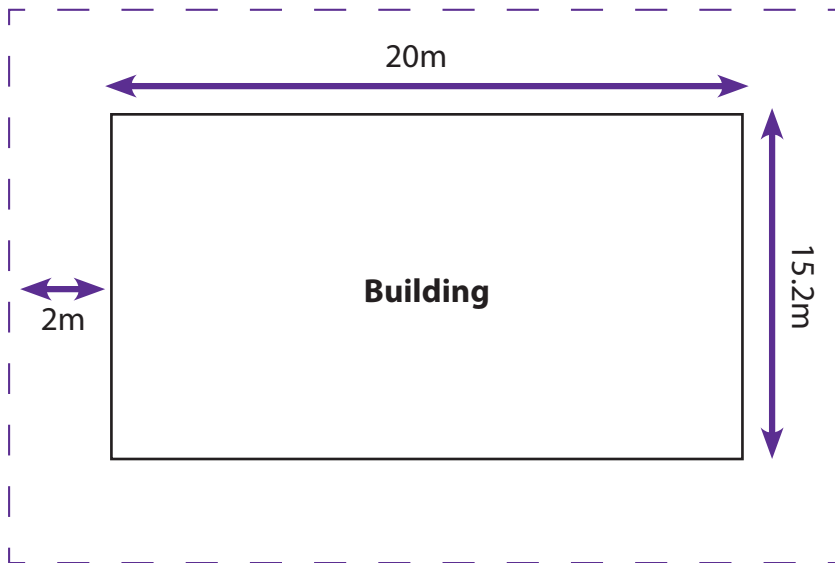
Scenario B

You work as a builder for Highfield Construction.

11

The site manager has asked you to put a safety fence around the outside of a building.

You have this plan:



— — — — —
Safety fence

Not drawn to scale

The safety fence must be 2 metres away from **each side** of the building.

The safety fence is made up of panels which are each 2.4 metres long.

How many panels will you need for the whole fence?

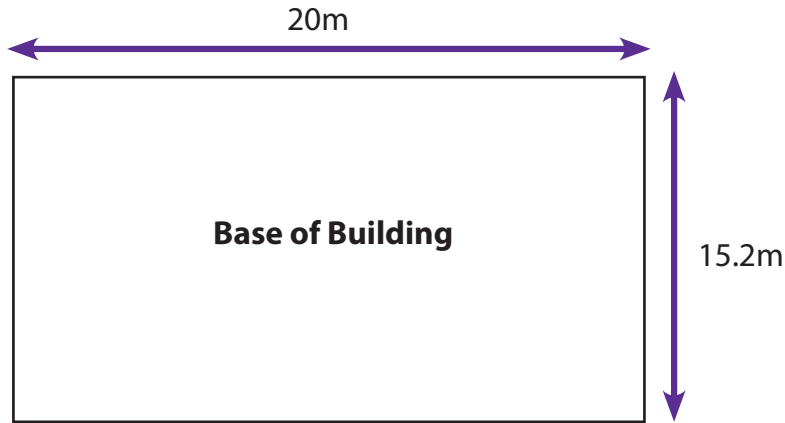
Show your working out and write your answer in the box below.

(4 marks)

Panels: _____

12

The site manager needs to order cement for the base of the building.



Not drawn to scale

The base will be 120mm thick.

Concrete costs £85 per cubic metre and any amount can be ordered.

a) Calculate the cost of the concrete needed for the base.

Show your working out and write your answer in the box below.

(5 marks)

Answer: £ _____

The cement company add a 5% delivery charge to the cost of all orders.

b) What is the total cost including delivery?

Show your working out and write your answer in the box below.

(2 marks)

Answer: £ _____

13

In a survey, 20 builders were asked how many bricks they could lay in one day.

These are the results:

492	520	412	390	400
530	550	390	445	410
392	548	495	320	502
340	440	510	378	467

a) Use the results to complete the table below using equal groups.

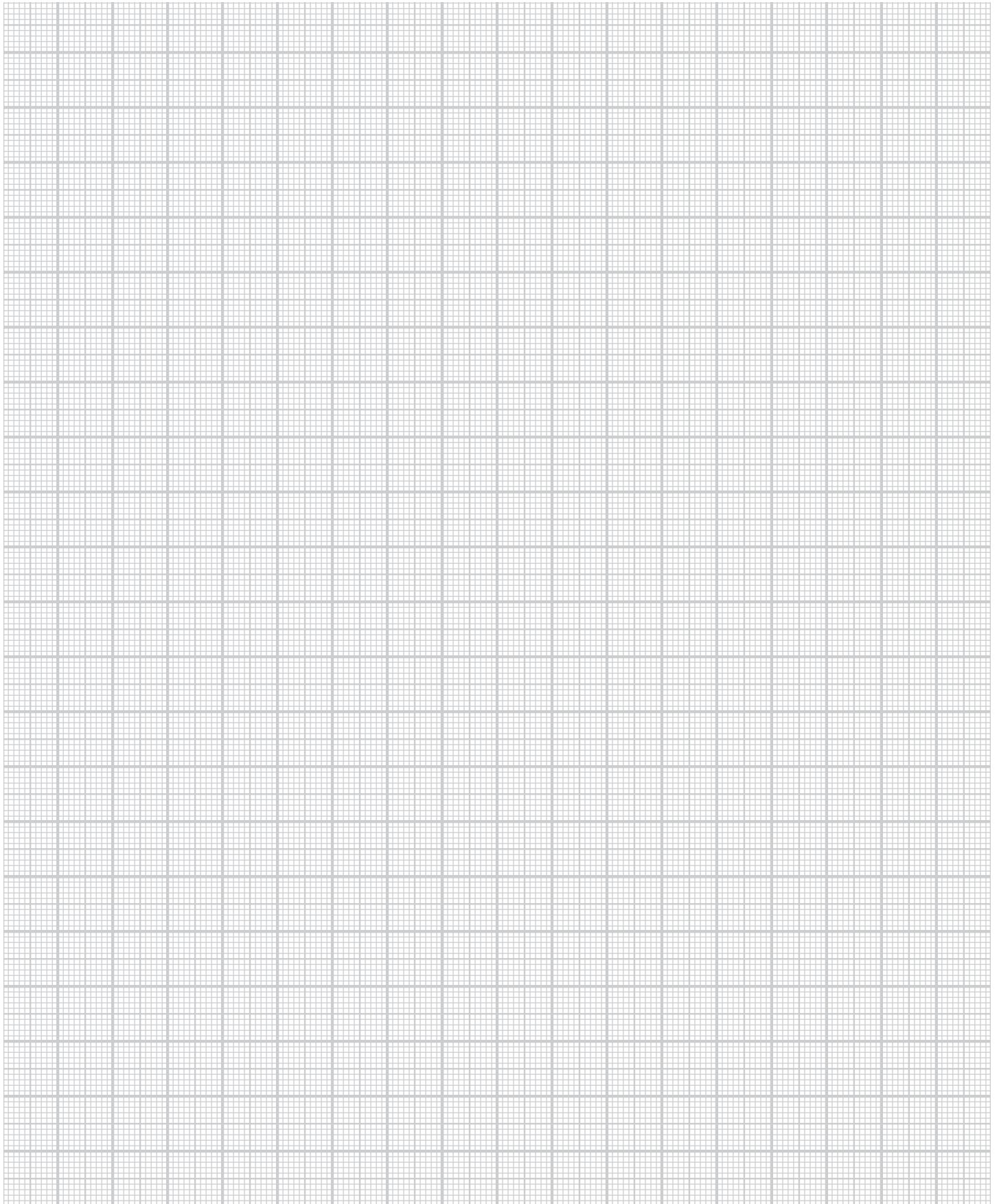
(2 marks)

Number of bricks:	Frequency:
301-350	
351-400	
Total:	

b) Using your table from 13a, create a graph or chart to represent the grouped data.

Draw your graph below.

(4 marks)



For official use only:

	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
Mark(s) available	1	3	2	1	3	1	5	2	6	4	4	7	6	45
Marker														
Moderator														

Marker:	
Date:	

Moderator:	
Date:	



Level 1

Mathematics

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