

13 The diagram shows a solid wooden cuboid.

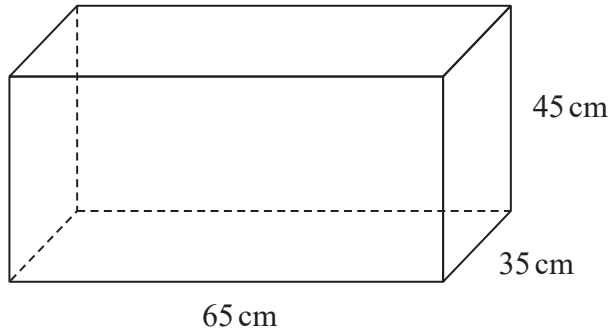


Diagram **NOT**
accurately drawn

The cuboid measures 65 cm by 35 cm by 45 cm.

A machine cuts the cuboid to make cubes.
Each cube has edges of length 5 cm.

Work out the maximum number of cubes that can be made from the cuboid.

.....
(Total for Question 13 is 3 marks)

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14 Anjali, Ravina and Sandeep were the three candidates in an election.

Heidi draws a pie chart for the number of votes received by each of the three candidates.

The angle in the pie chart for the number of votes received by Anjali is 90°

The angle in the pie chart for the number of votes received by Ravina is 160°

Ravina received 400 votes.

Work out the number of votes Sandeep received.

.....
(Total for Question 14 is 3 marks)



15 (a) Solve $5c = 15$

$$c = \dots\dots\dots (1)$$

(b) Expand $x(8 - x)$

$$\dots\dots\dots (1)$$

$$T = 5m - 6n$$

(c) Work out the value of T when $m = 4.2$ and $n = -2.5$

$$T = \dots\dots\dots (2)$$

(d) Make g the subject of $k = 2g + t$

$$\dots\dots\dots (2)$$

(Total for Question 15 is 6 marks)

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16 (a) Show that $\frac{3}{8} \div \frac{27}{32} = \frac{4}{9}$

(2)

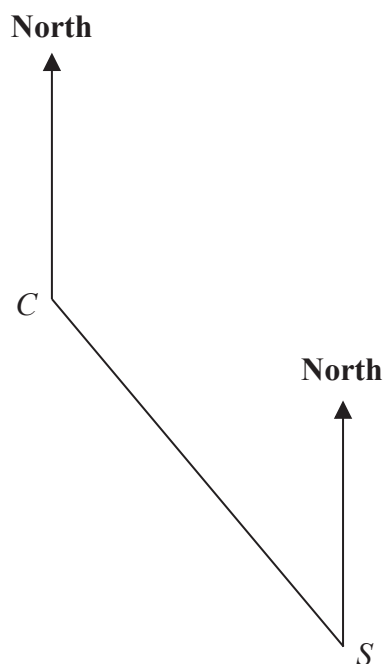
(b) Show that $\frac{5}{6} - \frac{3}{8} = \frac{11}{24}$

(2)

(Total for Question 16 is 4 marks)



17 The accurate scale drawing shows the position of a college C and a train station S



Scale: 1 cm represents 500 m

(a) Find the bearing of S from C

.....
(1)

For Charles,
1 step = 0.44 m

(b) Work out the number of steps Charles walks as he goes in a straight line from the college to the train station.

Give your answer correct to the nearest whole number of steps.

.....
(4)

(Total for Question 17 is 5 marks)



- 18 A tin contains tea bags with a choice of four different flavours of tea. The four flavours of tea are Assam or Darjeeling or Nilgiri or Rize.

Sara takes at random a tea bag from the tin.

The table shows each of the probabilities that the flavour of the tea Sara takes is Assam or Darjeeling or Rize.

Flavour of tea	Assam	Darjeeling	Nilgiri	Rize
Probability	0.38	0.24		0.16

- (a) Work out the probability that the flavour of the tea Sara takes is Nilgiri.

.....
(2)

- (b) Work out the probability that the flavour of the tea Sara takes is either Darjeeling or Rize.

.....
(2)

(Total for Question 18 is 4 marks)



19 Mary saves for a holiday each year.

In 2020 she saved a total of \$720

In 2021, each month she saved \$78

The total amount Mary saved in 2021 was $P\%$ more than the total she saved in 2020

(a) Work out the value of P

.....
(4)

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Roberto is going to go on holiday.

He has two coupons that will save him money on his holiday.

Coupon A

18% off the cost of the accommodation

Coupon B

12.5% off the total cost of the accommodation **and** the flights

For Roberto's holiday

the cost of the accommodation is \$1600

the cost of the flights is \$800

Roberto can only use one of the coupons.

He wants to save as much money as he can.

- (b) Which of the two coupons, **A** or **B**, should he use?
Show your working clearly.

(3)

(Total for Question 19 is 7 marks)

