YR 11-12

Summer Bridging Tasks

2023

Core Maths

Name: _____

- You should spend some time during the summer holidays working on the activities in this booklet.
- You will be required to hand in this booklet in your first lesson at the start of Year 12 and the content will be used to form the basis of your first assessments.
- You should try your best and show commitment to your studies.

- We are really looking forward to you coming to Hampstead School Sixth Form and studying Core Maths

1. Rounding to decimal places and significant figures

Examples: 2.354 rounded to 1 decimal place is 2.4

1.354 rounded to 1 significant figure is 2

Your turn:

Round your answers to 1 decimal place.
1) 3.432
2) 42.456
3) 3.982

Round your answer to 1 significant figure
1) 354
2) 492.5
3) 5.34

Round your answers to 2 decimal places.
1) 4.678
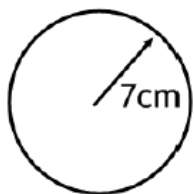2) 23.825
3) 39.098

Round your answer to 2 significant figures
1) 832
2) 5,832
3) 45.924

2. Circumference of a Circle:
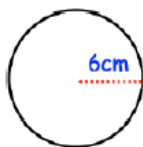
Formula: $2\pi r$ where r is the radius of the circle

Radius = 7cm
Circumference = $2 \times \pi \times 7 = 14\pi = 43.98$cm (2d.p)

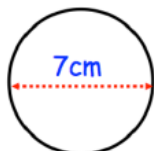**Your Turn**
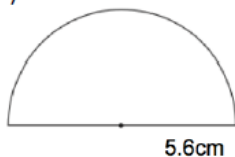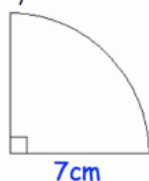
Find the **perimeter** of these shapes, round to 2dp

1)

6cm

2)

7cm

3)

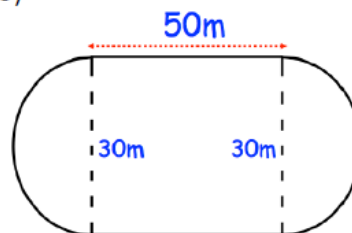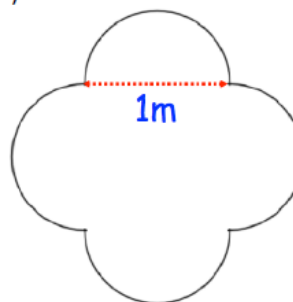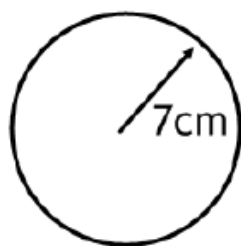5.6cm

4)

7cm

5)

50m
30m   30m

Challenge Question

6)

1m

3. Area of a Circle

Formula: πr^2 Where r is the radius of the circle

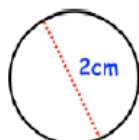Radius = 7cm, Area = $\pi r^2 = \pi \times 7^2 = 49\,\pi = 153.94\text{cm}^2$ (2.dp)

Your Turn:

Find the area of the circle, round to 3 sig fig

1)

6cm

2)

2cm

3)

1.9cm
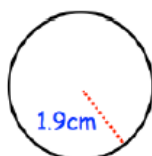
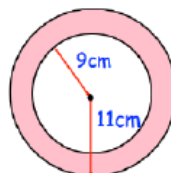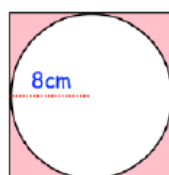Find the area of the shaded region, round to 2 sig fig
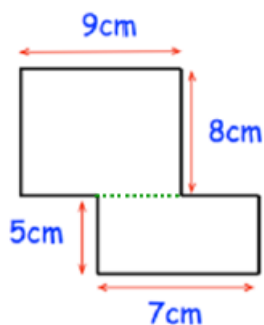
1)

9cm
11cm

2)

8cm

Challenge Question

3) Find the radius given the area is 50m^2

4. Area of Compound Shapes

To find the area of a composite shape, cut the shape up into shapes you can easily find the area for.

9cm
8cm
5cm
7cm

Area: (9 x 8) + (5 x 7)
        = 72 + 35
        = 107 cm^2
Perimeter = (9 x 2) + (13 x 2)
              = 44cm

Your Turn

Find the area to these shapes

1)

2cm
4cm
5cm
3cm
9cm

2)

5cm   5cm
7cm
2cm   16cm
14cm

3)

9cm   9cm
5cm
20cm
32cm

Find the shaded areas

1)

9cm
4cm
3cm
5cm

2)

15cm
8cm
3cm
3cm   3cm   6cm   15cm

Challenge Question

3)

39m
200m   25m   65m   52m
60m
140m
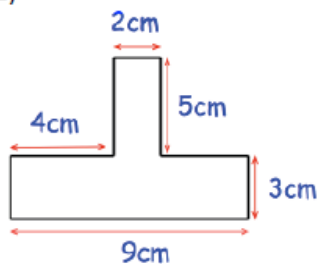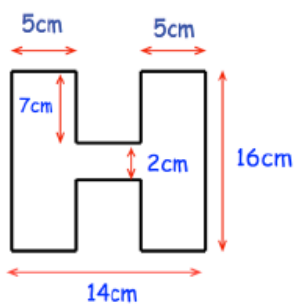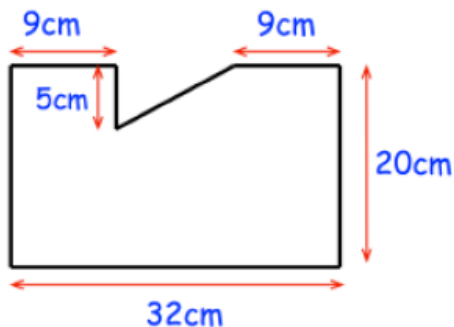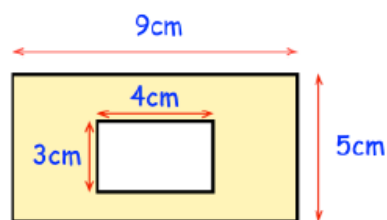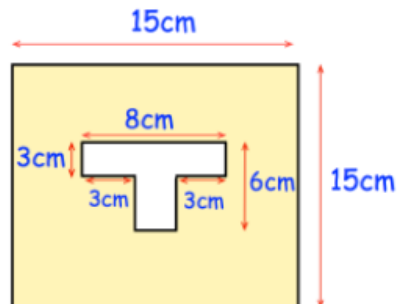
5. Pythagoras Theorem

Formula: $a^2 + b^2 = c^2$

Pythagoras Theorem only works with a right angle triangle

a   c
b
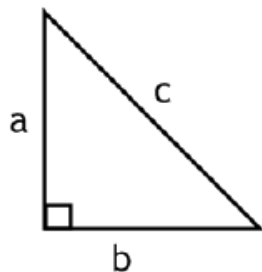
Examples:
Find the missing sides

34cm   c
21cm
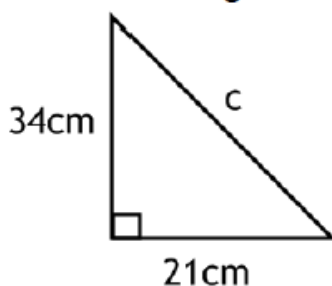
$34^2 + 21^2 = c^2$
$1156 + 441 = c^2$
$1597 = c^2$
$\sqrt{1597} = c$
$c = 39.59\text{cm}$

28cm
a
13cm
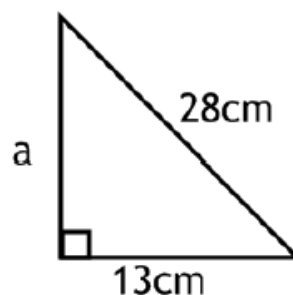
$a^2 + 13^2 = 28^2$
$a^2 + 169 = 784$
$a^2 = 784 - 169$
$a^2 = 615$
$a = \sqrt{615}$
$a = 24.80 \text{ cm}$

Your Turn

Find the missing sides correct to 2d.p

1)

3cm

x

4cm

2)

x

12cm

30cm

3)

37cm

x

40cm

4)

2.3mm

x

2.5mm
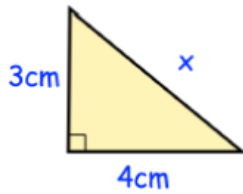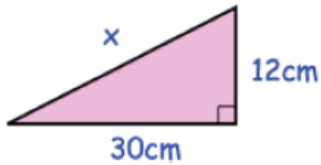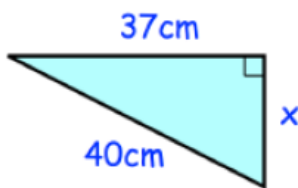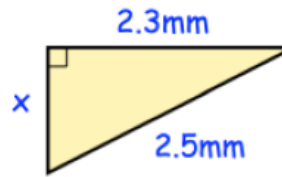
Challenge Questions

5)

x

14cm

8cm

12cm
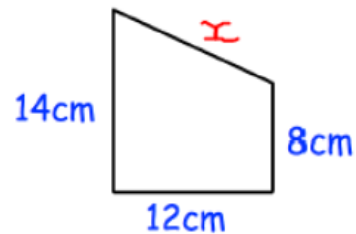
6)

An airplane is Flying from Redville to Leek.
The airplane flies 50 miles East and then 180 miles South.
How far is Leek from Redville directly?

6. Surface Area of Prism

To find the surface area of a prism you need to find the individual areas of each surface and add them together

Example

1cm   10cm   3cm
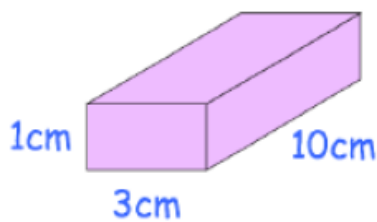
Front face = 1 x 3 = 3cm^2
Back face = 1 x 3 = 3cm^2
Left face = 10 x 1 = 10cm^2
Right face = 10 x 1 = 10cm^2
Top face = 3 x 10 = 30cm^2
Bottom face = 3 x 10 = 30cm^2
Total surface area = 3 + 3 + 10 + 10 + 30 +30 = 86cm^2

Find the SA of these shapes

1)

15cm
20cm
3cm

2)

30cm
3m
25cm

3)

4cm
7cm
9cm
6cm
2cm
20cm
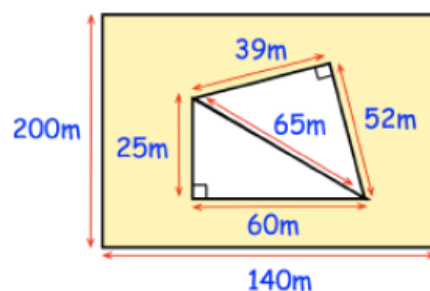10cm

4)

5cm
13cm
20cm
12cm

5)

7cm
5cm
5cm
4cm
8cm
12cm
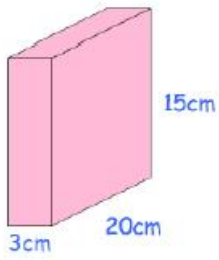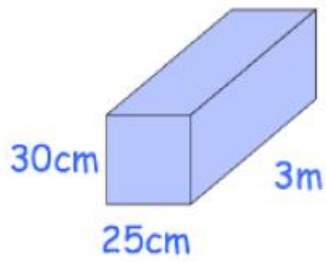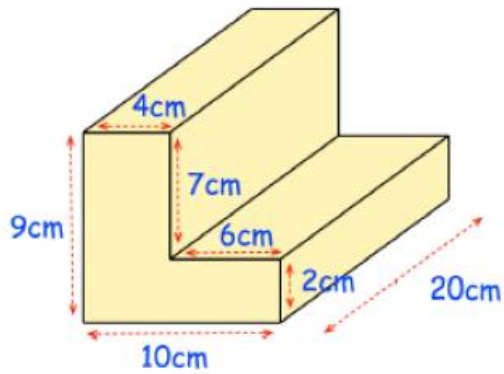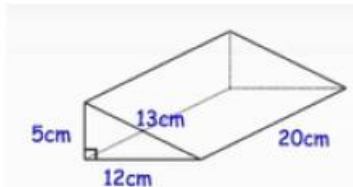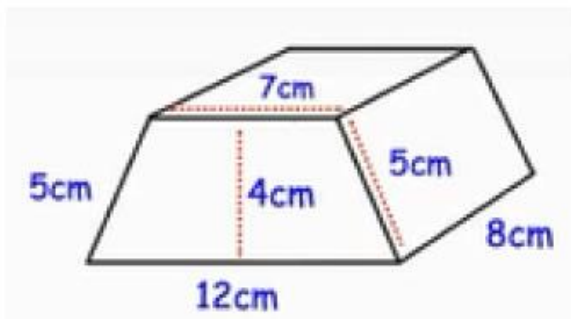
Find the missing side length given the surface area

Challenge Questions

1)

Surface area = 158cm²

5cm

3cm

Y
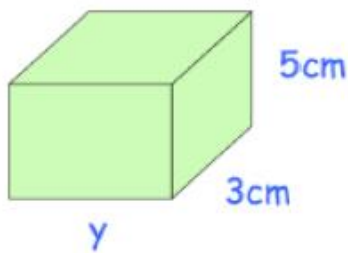
2)

Surface area = 346cm²

4cm

5cm

Y
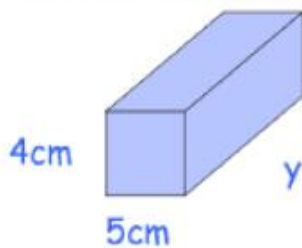
3)

Surface area = 90cm²

Y

6y

2y
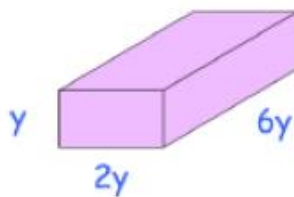
7. Challenge Topics - Conversion between unit areas:

For area conversions:

1m

1m =

Area: $1m^2$ = $10000cm^2$

100cm

100cm

$1m^2$ = $10000cm^2$

x 10000

÷10000
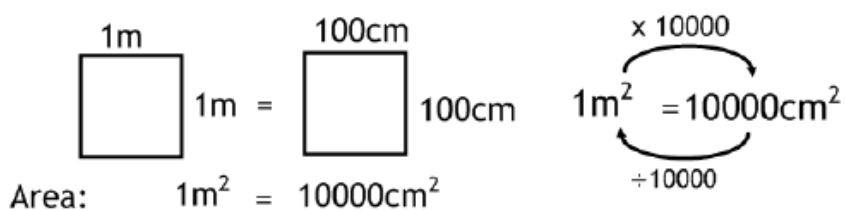
Example:

$2m^2$ = $20000cm^2$

$0.3m^2$ = $3000cm^2$

Your Turn:

1) Convert 3 m² into cm²
2) Convert 72.5 m² into cm²
3) Convert 20000 cm² into m²
4) Convert 23000000 cm² into m²

5) Convert 10.2 m³ into cm³
6) Convert 300000 cm³ into m³
7) Convert 9950000000 cm³ into m³
8) Convert 1.4 litres to cm³

Answers

Round to 1dp	Round to 2dp	Round to 1 sig fig	Round to 2 sig fig
1) 3·4|32	1) 4·67|8	1) 3|54	1) 83|2
= 3·4	= 4·68	= 400	= 830
2) 42·4|56	2) 23·82|5	2) 4|92·5	2) 5,8|32
= 42·5	= 23·83	= 500	= 5800
3) 3·9|82	3) 39·09|8	3) 5|34	3) 45|·924
4·0	= 39·10	= 5	46

Circumference of a circle.

1) $2 \times \pi \times 6 = 12\pi = 37.70$ cm

2) $7 \times \pi = 21.99$ cm

3) $5.6 \times 2 \times \pi + 5.6 \times 2$

$= \frac{56}{5}\pi + 11.2$

$= 46.39$ cm

4) $7 \times 2 \times \pi + 2 \times 7$

$= 14\pi + 14$

$= 57.98$ cm

5) $\frac{30 \times \pi}{2} + \frac{30 \times \pi}{2} + 50 + 50$

$= 15\pi + 15\pi + 100$

$= 30\pi + 100$

$= 194.25$ cm.

Challenge

6) $\frac{1 \times \pi}{2} + \frac{1 \times \pi}{2} + \frac{1 \times \pi}{2} + \frac{1 \times \pi}{2}$

$= 2\pi$

$= 6.28$ cm.

Area of a circle (3 sig fig)

1) $\pi \times 6^2 = 36\pi = 113 \text{ cm}^2$

2) $\pi \times \left(\frac{2}{2}\right)^2 = \pi = 3.14 \text{ cm}^2$

3) $\pi \times (1.9)^2 = 3.61\pi = 11.3 \text{ cm}^2$

Find the shaded region (2 sig fig)

1) Area of large circle : $\pi \times 11^2 = 121\pi$

   Area of small circle : $\pi \times 9^2 = 81\pi$

Shaded : $121\pi - 81\pi = 40\pi$

$= 125.66...$

$= 130 \text{ cm}^2$

2) Area of square $= 16 \times 16 = 256$

   Area of circle $= 8^2\pi = 64\pi$

Shaded Area $= 256 - 64\pi$

$= 54.938...$

$= 55 \text{ cm}^2$

Challenge Question.

$\pi r^2 = 50$

$r^2 = \frac{50}{\pi}$

$r^2 = 15.915...$

$r = \sqrt{15.915}$

$r = 3.989...$

$r = 4.0$

Area of Compound Shapes.

1)
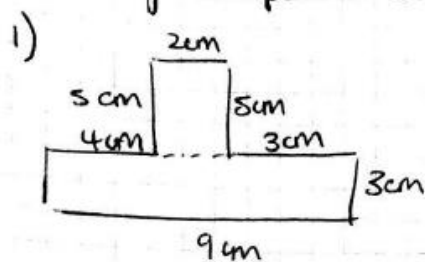
Area = $3 \times 9 + 2 \times 5$

$= 27 + 10$

$= 37 \, cm^2$

2)
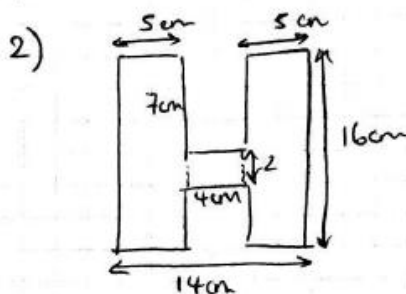
Area: $5 \times 16 + 5 \times 16 + 4 \times 2$

$= 80 + 80 + 8$

$= 168 \, cm^2$

3)
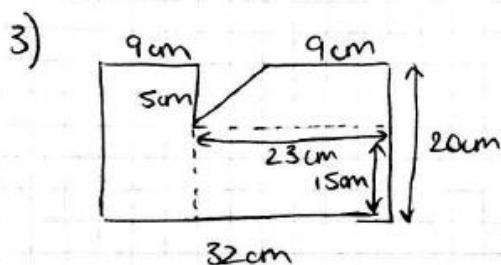
Area: $20 \times 9 + \frac{1}{2}(9+23) \times 5 + 23 \times 15$

$= 180 + 80 + 345$

$= 605 \, cm^2$

Shaded Region.

1)
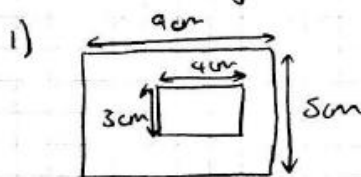
Area: $9 \times 5 - 4 \times 3$

$= 45 - 12 = 33 \, cm^2$

2)
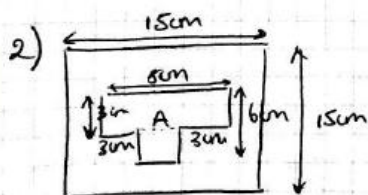
Area of Shape A: $8 \times 3 + 3 \times 2$

$= 24 + 6$

$= 30$

Shaded: $15 \times 15 - 30$

$= 195 \, cm^2$

Challenge Question

3)
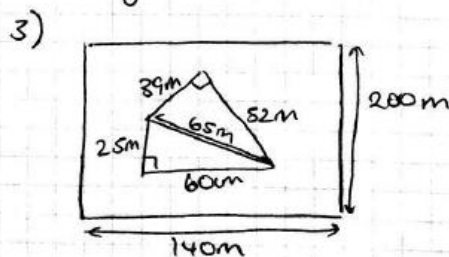
Area of triangles: $\frac{1}{2} \times 25 \times 60 + \frac{1}{2} \times 39 \times 52$

$= 750 + 1014$

$= 1764$

Shaded Area: $200 \times 140 - 1764$

$= 26236 \, m^2$

Pythagoras (2 dp)

1)
$$3^2 + 4^2 = x^2$$
$$25 = x^2$$
$$5cm = x$$

2)
$$12^2 + 30^2 = x^2$$
$$144 + 900 = x^2$$
$$\sqrt{1044} = x$$
$$32.31cm = x$$

3)
$$37^2 + x^2 = 40^2$$
$$x^2 = 40^2 - 37^2$$
$$x^2 = 231$$
$$x = \sqrt{231}$$
$$x = 15.20cm.$$

4)
$$x^2 + 2.3^2 = 2.5^2$$
$$x^2 + 5.29 = 6.25$$
$$x^2 = 0.96$$
$$x = \sqrt{0.96}$$
$$x = 0.98cm.$$

Challenge Questions (2 dp)

5)
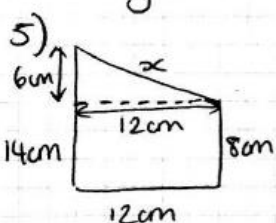
$$x^2 = 6^2 + 12^2$$
$$x^2 = 36 + 144$$
$$x = \sqrt{180}$$
$$x = 13.42cm$$

6)
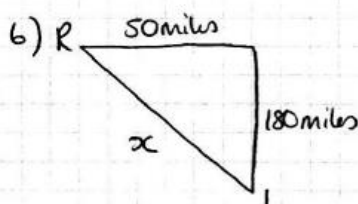
$$x^2 = 50^2 + 180^2$$
$$x^2 = 2500 + 32400$$
$$x = \sqrt{34900}$$
$$x = 186.82 \text{ miles.}$$

Surface Area

Challenge Questions

1)
Front : $5 \times y = 5y$
Back : $5 \times y = 5y$
Top : $3 \times y = 3y$
Bottom : $3 \times y = 3y$
Side : $3 \times 5 = 10$
Side : $3 \times 5 = 10$
Total : $5y + 5y + 3y + 3y + 20$
$= 16y + 20$

$-20 \left(\begin{array}{c} 158 = 16y + 20 \\ 138 = 16y \end{array} \right) -20$

$\div 16 \left(\begin{array}{c} 138 = 16y \\ y = 8.625 \end{array} \right) \div 16$

$y = 8.6 cm$

2)
Front : $4 \times 5 = 20$
Back : $4 \times 5 = 20$
Top : $5 \times y = 5y$
Bottom : $5 \times y = 5y$
Side : $4 \times y = 4y$
Side : $4 \times y = 4y$
Total : $20 + 20 + 5y + 5y + 4y + 4y$
$= 40 + 18y$

$-40 \left(\begin{array}{c} 40 + 18y = 346 \\ 18y = 306 \end{array} \right) -40$

$\div 18 \left(\begin{array}{c} 18y = 306 \\ y = 17. \end{array} \right) \div 18$

3) Front : $y \times 2y = 2y^2$

Back : $y \times 2y = 2y^2$

Top : $2y \times 6y = 12y^2$

Bottom : $2y \times 6y = 12y^2$

Side : $y \times 6y = 6y^2$

Side $y \times 6y = 6y^2$

Total : $40y^2$

$\div 40 \left(\quad 40y^2 = 90 \quad \right) \div 40$

$y^2 = \dfrac{9}{4}$

$y = \sqrt{\dfrac{9}{4}}$

$y = \pm \dfrac{3}{2}$ because you

$y = \dfrac{3}{2}$ $y \neq -\dfrac{3}{2}$ cannot have a negative length.

Surface Area (3 sf)

1)

Front $3 \times 15 = 45$
Back $3 \times 15 = 45$
Side $20 \times 15 = 300$
Side $20 \times 15 = 300$
Top $3 \times 20 = 60$
Bottom $3 \times 20 = 60$

Total : $810 \, cm^2$

2)

Front : $25 \times 30 = 750$
Back : $25 \times 30 = 750$
Side : $30 \times 3 = 90$
Side : $30 \times 3 = 90$
Top : $25 \times 3 = 75$
Bottom : $25 \times 3 = 75$

Total : $1830 \, cm^2$

3)
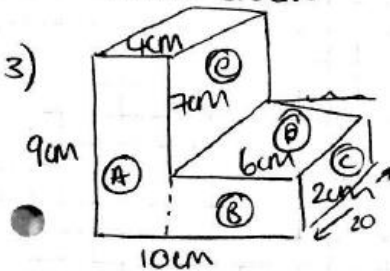
Area :
Front A — $9 \times 4 = 36$
Back A — $9 \times 4 = 36$
Front B — $6 \times 2 = 12$
Back B — $6 \times 2 = 12$
ⓒ — $2 \times 20 = 40$
ⓓ — $6 \times 20 = 120$
ⓔ — $7 \times 20 = 140$
④ — $4 \times 20 = 80$
Bottom — $10 \times 20 = 200$
Side — $9 \times 20 = 180$

Total : $856 \, cm^2$

4)

Front : $\frac{1}{2} \times 5 \times 12 = 30$
Back : $\frac{1}{2} \times 5 \times 12 = 30$
Bottom : $12 \times 20 = 240$
Side : $5 \times 20 = 100$
Top : $13 \times 20 = 260$

Total : $660 \, cm^2$

5) Front : $\frac{1}{2}(7+12) \times 4 = 38$
   Back : $\frac{1}{2}(7+12) \times 4 = 38$
   Bottom : $12 \times 8 \qquad = 96$
   Side : $5 \times 8 \qquad = 40$
   Side : $5 \times 8 \qquad = 40$
   Top : $7 \times 8 \qquad = 56$

   Total : 308 cm^2

7) Challenge Topic – Metric Conversions of Area.

   1) $3 \times 10000 = 30000$
      $3\text{m}^2 = 30000 \text{ cm}^2$

   2) $72.5 \times 10000 = 725000$
      $72.5\text{m}^2 = 725000 \text{ cm}^2$

   3) $20000 \div 10000 = 2$
      $20000 \text{ cm}^2 = 2\text{m}^2$

   4) $23000000 \div 10000 = 2300$
      $23000000 \text{ cm}^2 = 2300 \text{ m}^2$

   5)
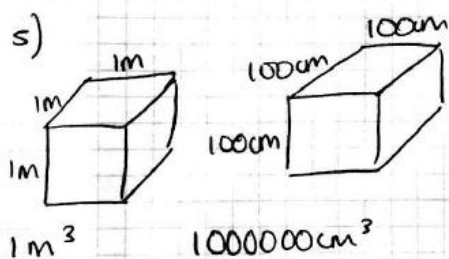
   $1\text{m}^3 \qquad 1000000 \text{cm}^3$

   $1\text{m}^3 = 1000000 \text{ cm}^3$

   $10.2 \times 1000000 = 10200000$
   $10.2\text{m}^3 = 10200000 \text{ cm}^3$

   6) $300000 \div 1000000 = 0.3$
      $300000 \text{ cm}^3 = 0.3\text{m}^3$

   7) $9950000000 \text{ cm} \div 1000000 = 9950$
      $9950000000 \text{ cm}^3 = 9950 \text{ m}^3$

   8) $1\text{ml} = 1 \text{cm}^3$
      $\div 1000$
      $1000\text{ml} = 1 \text{ litre}$
      $\times 1000$

      $1.4 \times 1000 = 1400\text{ml}$
      $1.4 \text{ litres} = 1400 \text{ ml}$
      1400cm^3

Core Maths Summer Work

Contents

1. Bar Charts

a.

The dual bar chart shows the number of orders received as email and phone by a small company during a week in January 2012
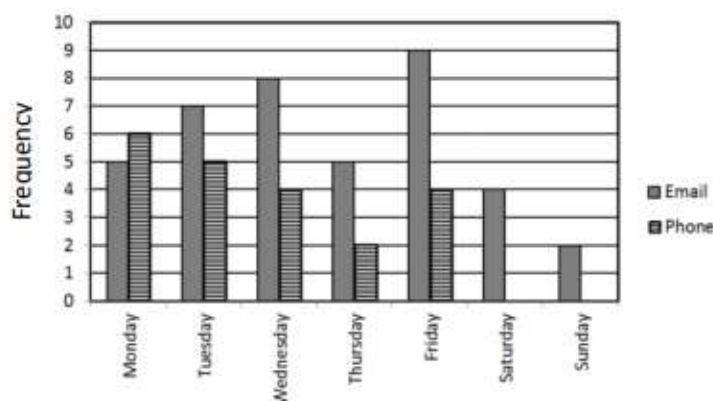
a) Which day did the company receive more phone orders than email orders?
b) Why do you think there were no phone orders on 2 of the days?
c) The manager says that more than half of the orders are taken by email. Is this true? You must show how you decide.

A similar study was carried out in January 2001. The results are shown below
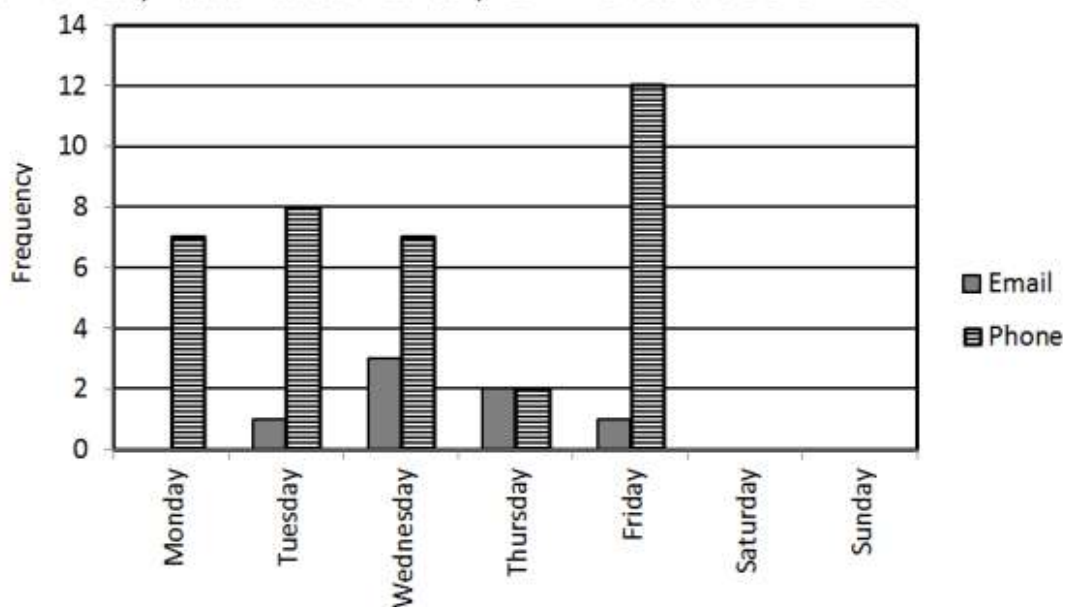
d) Comment on the differences and similarities between the 2012 and the 2001. Suggestions reasons for your observations.

2. Boxplots and Cumulative Frequency

a.

Kick-it FC looked at their last 40 matches and recorded the time when their first goal in the match was scored.

Time t, in minutes of the first goal	Number of matches
$0 \le t < 15$	4
$15 \le t < 30$	8
$30 \le t < 45$	1
$45 \le t < 60$	5
$60 \le t < 75$	7
$75 \le t < 90$	12

a) In how many matches did the team not score any goals?
b) Draw a cumulative frequency graph to show this data?
c) Use your graph to estimate the number of matches in which the first goal was scored after 80 minutes.

The close rivals of Kick-it FC called Missed-it FC investigate the same thing for 40 of their matches. Their results are shown in the box and whisker plot below.

Time in minutes
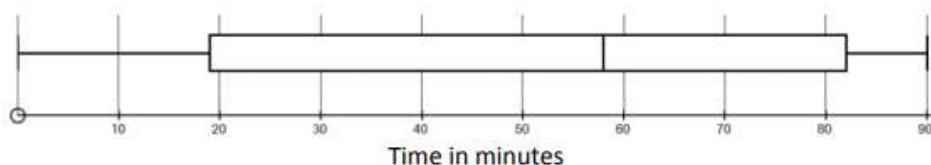
d) Draw a box and whisker plot for the data for Kick-it FC
e) If the two teams were to play against each other, which team would be most likely to score the first goal. Show how you decided

b.

The Royal Mail is investigating waiting times at different post offices.

Village post Office

Minimum	30 seconds
Lower Quartile	2 minutes
Median	4 minutes
Upper Quartile	7 minutes
Maximum	12 minutes

Town Centre Post Office

a) Draw Box and Whisker plots for the data
b) Compare the waiting times at the 2 different types of post office.

3. Percentages and proportion

a.

Tina earns £6.40 per hour and works 35 hours per week.
Her rent is £84 per week. From next month her new hourly rate of pay will rise by 5% but her rent is increasing by £4 per week.

How will this change the amount she has to spend after paying her rent and by how much?

b.

The value of Facebook shares changed from $27.10 on the 8th June 2013 to $30.01 on the 15th June.

Calculate the percentage change(correct to 1 decimal place).

c.

A 600g packet of biscuits costs £2.40.
How much would a 250g packet cost?

d.

Which is the best value for money
A 300ml bottle of shower gel priced £2.25 or a 125ml bottle of shower gel priced 90p

e.

Helia invested £4000 for 3 years with a compound interest rate of 1.5%.
What was her investment worth at the end of this period?

f.

A car valued at £12000 at the start of 2010, depreciated in value by 3% over the next 2 years. How much did it lose in value over this period?

g.

A TV priced at £800 was reduced by 20% in a sale.
On the last day it was reduced by a further 10%.
Work out the overall percentage reduction in price.

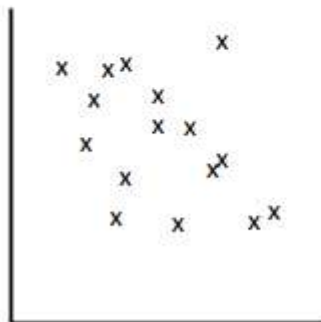## 4. Scatter graphs

a.

For each of the scatter graphs

Write down two variables that might fit the relationship

i)   ii)
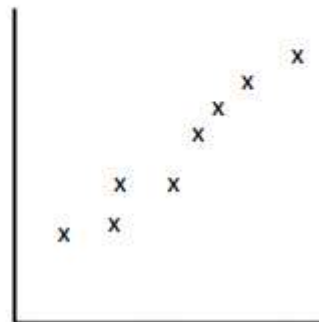
b.

Jack recorded the age and value of eight second hand cars

	A	B	C	D	E	F	G	H
Age (years)	3	4	5	6	7	8	9	10
Value (£)	4500	3900	3000	2500	4100	1500	1200	900

a) Draw a scatter graph to show this data
b) Draw a line of best fit on your graph
c) Jack thinks that he has recorded one of his values incorrectly.
   Which car do you think this was?

d) Use your graph to estimate the value of a car that is
   i) 5 ½ years old
   ii) 11 years old.

e) Which of your estimates is the most reliable? Explain why.

c.

Emma is comparing textbooks in order to test the hypothesis:
'The books that weigh more have more pages'

She records the number of pages in a selection of her books and then weighs each book.
Her results are shown in the table below

Book	A	B	C	D	E	F	G	H	I
Number of pages	82	90	140	101	160	140	111	152	202
Weight(g)	165	155	210	192	245	96	190	231	280

a) One of the readings is an outlier. Which reading is an outlier?
   Give a reason why this might occur.

b) Is Emma's hypothesis correct?
   Show working to justify your answer.

5. Histograms

a.

The histogram shows the time spent watching TV by a sample of students during 1 weekend.

Time in hours
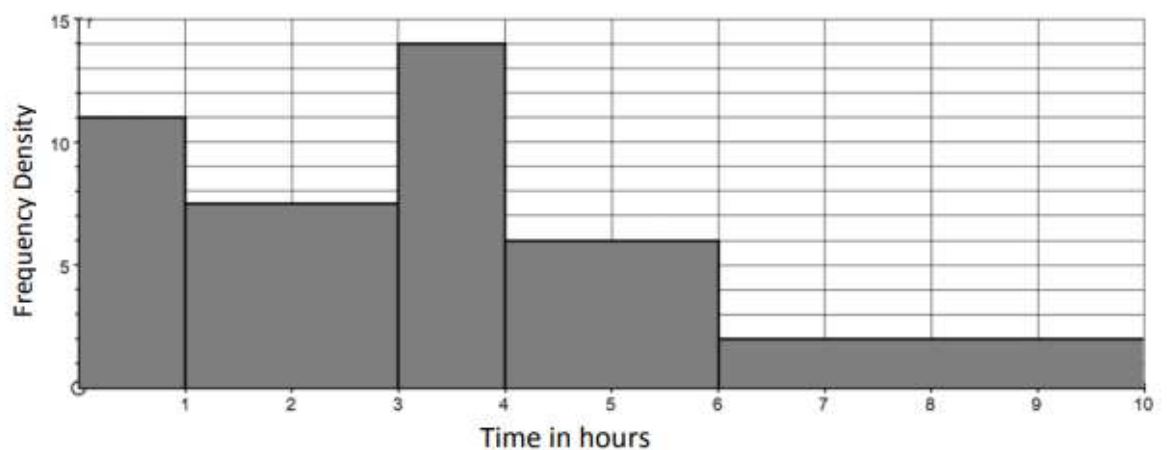
a) How many student spent 1 hour or less watching TV?
b) How many students were in the sample altogether?
c) Estimate the number of students who watched less than 3 ½ hours of TV?
c) Estimate the median time spent watching TV (to the nearest minute)?

b.

A call centre receives 64 telephone calls one morning.
The table gives information about the lengths, in minutes, of these telephone calls.

Length (x) minutes	Frequency
$0 < x \le 5$	4
$5 < x \le 15$	10
$15 < x \le 30$	24
$30 < x \le 40$	20
$40 < x \le 45$	6

Draw a histogram using the data.

c.

The table gives some information about the speeds, in km/h, of 100 cars.

Speed(s km/h)	Frequency
$60 < s \le 65$	15
$65 < s \le 70$	25
$70 < s \le 80$	36
$80 < s \le 100$	24

Draw a histogram using the date.
Work out an estimate for the number of cars with a speed of more than 85km/h.

6. Averages

a.

The table shows some information about storms in the USA

	Number of rumbles of thunder per minute
Mean	3.1
Median	3
Mode	3

This tables shows the number of rumbles of thunder per minute during a storm in the UK

Number per minute	0	1	2	3	4	5
Frequency	11	24	14	3	1	2

Compare the UK storm to the storm in the USA

b.

Hertford Juniors is a basketball team.

At the end of 10 games, their mean score is 35 points per game.

At the end of 11 games, their mean score has gone down to 33 points per game.

How many points did the team score in the 11th game?

c.

Majid carried out a survey of the number of school dinners 32 students had in one week.

The table shows this information.

Number of school dinners	Frequency	
0	0	
1	8	
2	12	
3	6	
4	4	
5	2	

Calculate the mean.

d.

The table gives information about the distances, in kilometres, Darren travelled to deliver 100 parcels.

Distance travelled (d km)	Frequency
$0 < d \leqslant 5$	28
$5 < d \leqslant 10$	32
$10 < d \leqslant 15$	20
$15 < d \leqslant 20$	14
$20 < d \leqslant 25$	6

Work out an estimate for the mean distance Darren travelled to deliver these parcels.

7. Number Skills

a.

Round these numbers to 1 significant figure
a) 127 cm
b) 3756 g
c) 62.7 m

b.

Calculate the answers to the following by
i) writing down the full calculator display
ii) rounding your answer to the number of decimal places given

a) $12 + \frac{14.27}{0.3}$ (2 d.p)   b) $5.7^2 - \sqrt{75}$ (1 d.p)   c) $\frac{1}{0.8^2}$ (2 d.p.)

d) $\sqrt{4.5 + 3.2^2}$ (3 d.p)   e) $\frac{4.72 - 1.4}{1.4^2}$ (1 d.p)   f) $\frac{3.4 + 1.92}{-0.5^2}$ (1 d.p)

c.

Molly calculated that on average, it took students in her class 3.85 minutes to solve a puzzle.
How many seconds is this?

d.

Harry's car does 8.5 miles per to each litre of petrol. He does 13200 miles a year of which 5100 is on company business.

Petrol costs £1.34 per litre.
Insurance and servicing costs £1200 per year.

Harry's company pays him an allowance of 40p for each mile he drives on company business.

How much does Harry pay towards running his car each year?

e.

The table show an estimate of the population of five countries

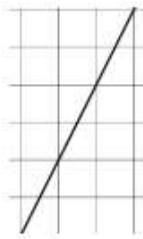| COUNTRY	POPULATION
China	1.4×10^9
Ireland	4.7×10^6
Russia	1.4×10^8
USA	3.4×10^8
UK	6.6×10^7

a) What is the difference in the population of the USA and UK?
b) How many times larger is the population of China than Ireland?
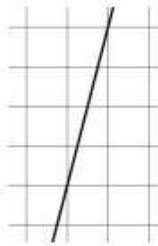   Give your answer correct to 1 significant figure

8. Graph skills

a.
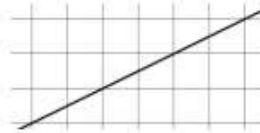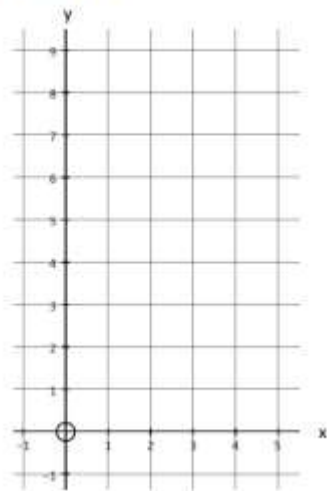
Write down the gradients of the following lines
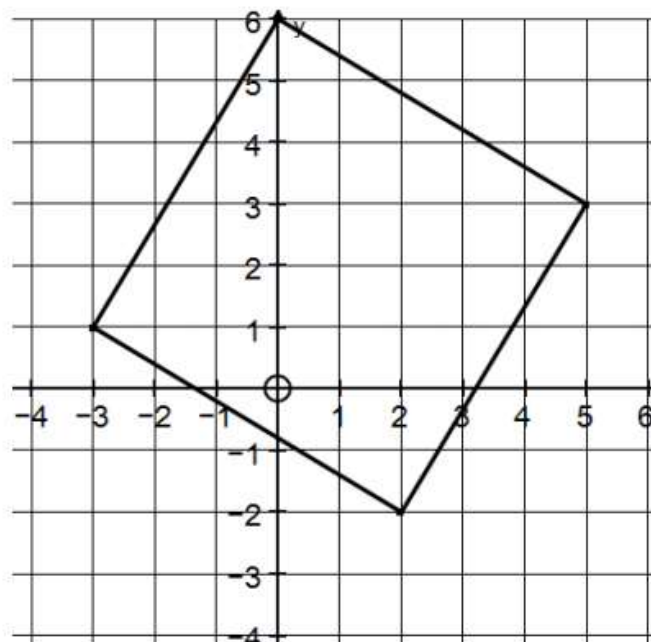
a) b) c)

d)

b.

 plot the graph of y = 2x -1

c.

y = 2x + 3
a) What is the value of y when x = 4?
b) What is the value of y when x = 2?

d.

The square shown below has vertices A(5,3) B(2,-2) C(-3,1) D(0,6)

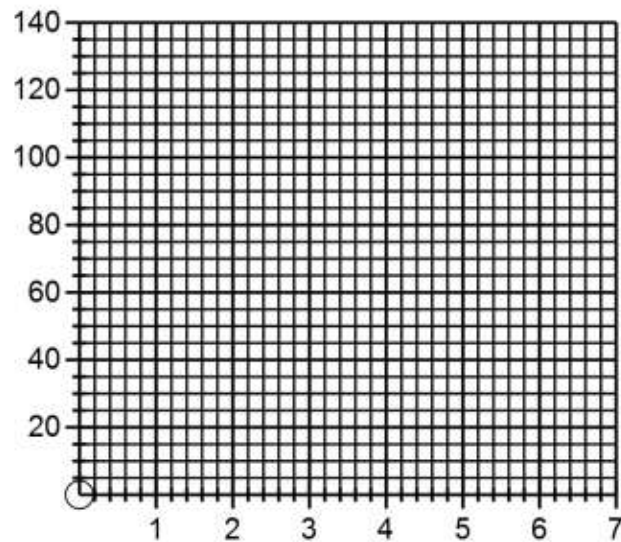Calculate the length of the side of the square (answer correct to 1 decimal place)

e.

The cost of hiring a carpet cleaner is £15 per day, plus a fixed cost of £10

a) Copy and complete the table to show the cost of hiring the cleaner for different numbers of days

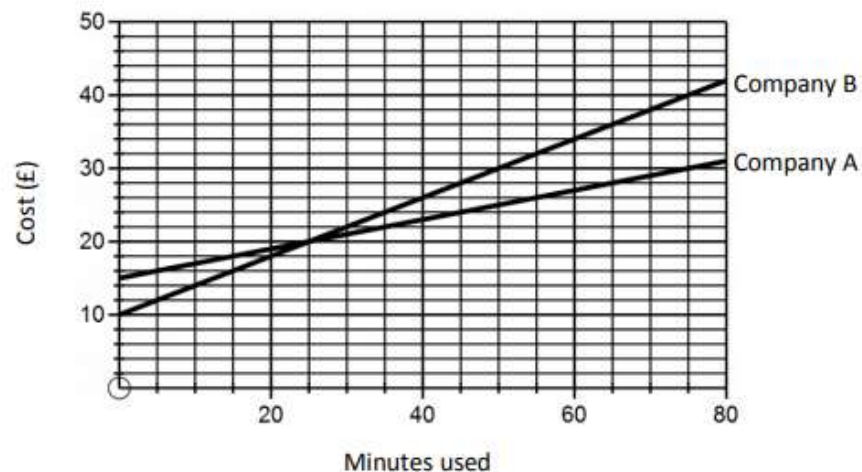| Number of days	1	2	3	4	5
Cost (£)	25				

b) Copy the grid and plot the values from your table to form a graph

c) Use you graph to find the cost of hiring the cleaner for 6 days

f.

The graph shows the tariffs for 2 different mobile phone companies

a) If you were to use 65 minutes, which company would be the cheapest and by how much?

b) Which company charges the highest 'per minute rate'?

c) What is the fixed charge for company A?

9. Algebra Skills

a.

Rearrange the formulae to make y the subject

a) $y + a = c$ b) $2y + e = f$ c) $j = 4y - 3k$

b.

Make n the subject of the formulae

a) $k = 8n^2 + w$ b) $s = \sqrt{n} - f$ c) $t = y + \sqrt{\quad}$

A formula for the volume of a sphere is $V = -$

a) Make r the subject of a formula

b) Hence find the radius of a sphere with volume 300π cm^3
    Give your answer correct to 3 significant figures

c.

Rearrange to make x the subject of the formulae

a) $ax + b = px + q$

b) $g(x + 1) = f - x$

d.

Solve

a) $4(2x + 1) = 28$

b) $4(x - 2) = 10$

c) $4x + 1 = 2x + 17$

d) $5x - 4 = 2x + 8$

e.

Solve

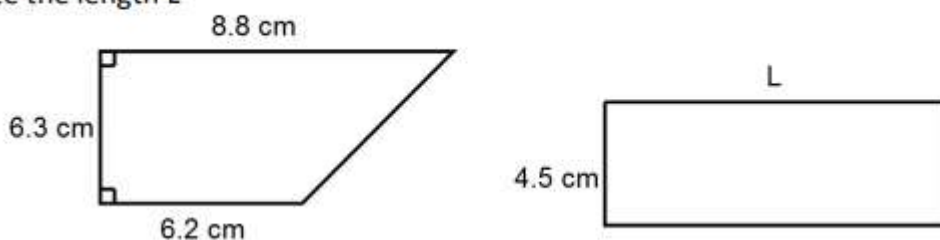a) $4(x + 2) = 2x + 9$

b) $2 - 5x = 3(2 - x)$

f.

Solve

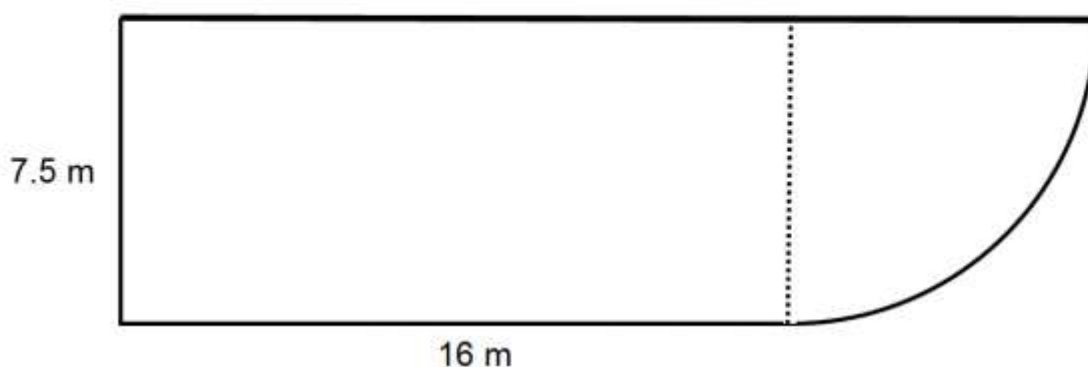a) $\dfrac{8x + 2}{4} = 6$ b) $\dfrac{x + 1}{4} = \dfrac{x - 2}{3}$

10. Shape Skills

a.

These two shapes have the same area.
Calculate the length L

8.8 cm

6.3 cm

6.2 cm

L

4.5 cm

b.
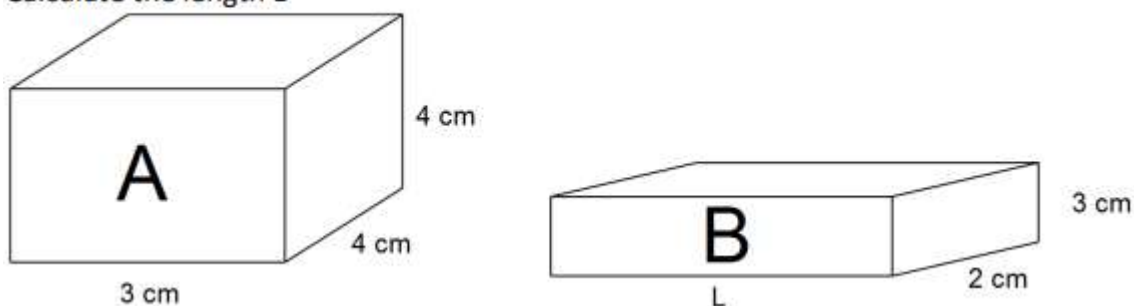
Turf Supplies charge £15 for delivery and £5.50 per square metre of turf (you cannot buy part of a square metre) How much will it cost Jake to turf his lawn shown in the diagram below?
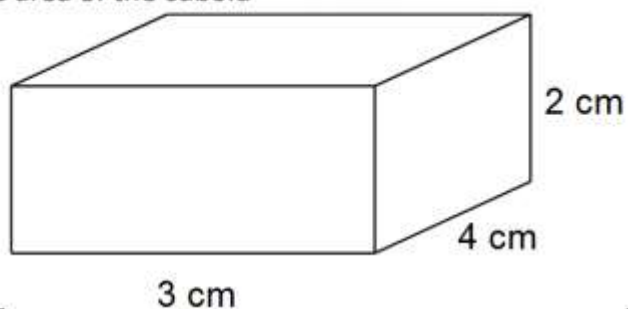

7.5 m

16 m

c.

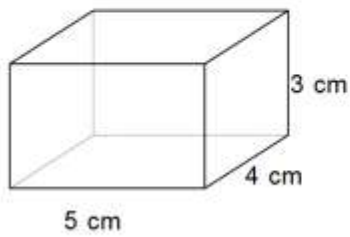These two cuboids have the same volume.
Calculate the length L

4 cm

A

4 cm

3 cm

B

3 cm

L

2 cm

d.

Calculate the surface area of the cuboid

2 cm

4 cm

3 cm

e.

Calculate the volume following

a)   b)   c)

3 cm

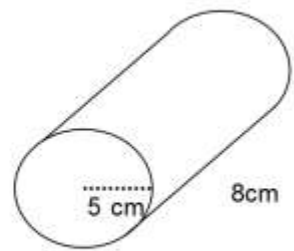4 cm

5 cm

4 cm

9 cm

6 cm

5 cm

8cm
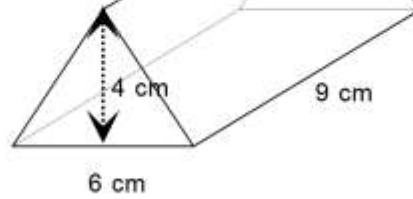
f.
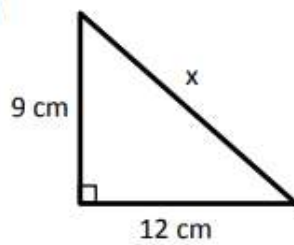
A cube has a surface area of 150 cm².
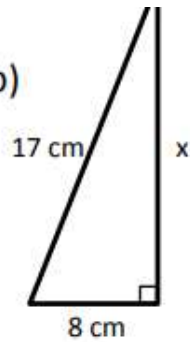Calculate the volume of the cube

g.

Find the length of x.

a)   b)   c)

x

9 cm

12 cm

17 cm

x

8 cm

6.5 cm

3.3 cm