



Revision Booklet

Functional Skills Level 2

QUESTIONS TO GO WITH YOUR
LESSONS

Name:

Vocational Course:

Week 2 Lesson 1 – Number

- 1) Write numbers in increasing order starting with the smallest. (1)

10010 11010 10001 11100 11011

- 2) Put these numbers in order of size starting with the smallest (1)

9303 8481 8999 999 1011

- 3) Ireland Wales Scotland England
9223 8029 9301 8803

- a) Put the points scored in order, starting with the lowest. (1)

Week 2 Lesson 1 – Number

- b) Find the difference in points scored between the highest and lowest amounts. (1)

- 4) Write these numbers in order of size. Start with the smallest number. (1)

a) 9, -4, -7, 2, -5

- 5) Using the information that (1)

$$42 \times 31 = 1302$$

write down the value of

$$42 \times 62$$

Week 2 Lesson 1 – Number

- 6) Using the information that (1)

$$84 \times 264 = 22176$$

write down the value of

$$8.4 \times 26.4$$

- 7) a) Write the number 3804 in words (1)

- b) Write the number 'Ten thousand, two hundred and fifty one' in figures. (1)

- 8) At a Bath rugby match, there were 13,912 spectators. (1)

Write 13,912 in words

Week 2 Lesson 1 – Number

- 9) Arrange these numbers in order of size, starting with the smallest. (2)

One Billion

half a million

six hundred and ten thousand

ninety seven thousand

two million

smallest

largest

- 10) Write these numbers in order of size. Start with the largest number.

9

-5

1

-13

12

Week 2 Lesson 2 – BIDMAS

1a) Calculate $16 - 5 \times 2$

Write your answer in the box below. (1)

b) $10 - 3^2$

Write your answer in the box below. (1)

c) $5 \times (2 + 3)$

Write your answer in the box below. (1)

2a) Calculate $10 + 3 \times 2$

Write your answer in the box below. (1)

b) $8 \div 2 + 12 \div 4$

Write your answer in the box below. (1)

Week 2 Lesson 2 – BIDMAS

c) $3 \times 10 \div 5 - 1$

Write your answer in the box below. (1)

3a) Calculate $6 + 6 \div 3$

Write your answer in the box below. (1)

b) $8 + 3(5 - 1)$

Write your answer in the box below. (1)

c) $9 \times 2 + 20 \div 2$

Write your answer in the box below. (1)

4) Put brackets in the following statements to make them true.

a) $6 \times 7 + 3 - 8 = 52$ (1)

b) $4 + 3 \times 7 - 1 = 42$

Week 2 Lesson 2 – BIDMAS

5a) Work out $14 + 12 \div 2$

Write your answer in the box below. (1)

b) $6 \times 4 - 7 \times 3$

Write your answer in the box below. (1)

6a) Work out $2^3 + 3^2$

Write your answer in the box below. (1)

b) $2^2 \times 3^3$

Write your answer in the box below. (2)

7) Work out $(2 + 5)^2$

Write your answer in the box below. (1)

Week 2 Lesson 2 – BIDMAS

8a) Work out $(9 + 4) \times (100 \div 25)$

Write your answer in the box below. (1)

b) $5 + 3 \times 6$

Write your answer in the box below. (1)

c) $22 - 14 \div 2$

Write your answer in the box below. (1)

9) Joey thinks the answer to $16 + 4 \times 2$ is 40.

Albert thinks the answer to $16 + 4 \times 2$ is 24.

Who is correct?

Explain your answer in the box below. (2)

Week 2 Lesson 2 – BIDMAS

10a) Work out $4 \times (3 + 17)$

Write your answer in the box below. (1)

b) $10 - 2 \times 5$

Write your answer in the box below. (1)

c) $30 - 5 \times 2$

Write your answer in the box below. (1)

Week 3 Lesson 1 - Fractions

1) Write down the largest of these fractions.

$$\frac{3}{5} \quad \frac{11}{20} \quad \frac{1}{2}$$

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

(2)

2) Write these fractions in order of size.

Start with the smallest number.

$$\frac{7}{10} \quad \frac{3}{4} \quad \frac{1}{2} \quad \frac{3}{5}$$

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

(2)

.....

Week 3 Lesson 1 - Fractions

3) Arrange these fractions in order, smallest first.

$$\frac{2}{3} \quad \frac{7}{9} \quad \frac{5}{6} \quad \frac{11}{18}$$

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

(2)

4) A football team wins $\frac{3}{8}$ of their matches in a season.

The same team loses $\frac{1}{3}$ of their matches.

Show that the team win more matches than they lose in the box below.

(2)

Week 3 Lesson 1 - Fractions

5) Work out, as a simplified fraction.

$$\frac{3}{4} - \frac{2}{5}$$

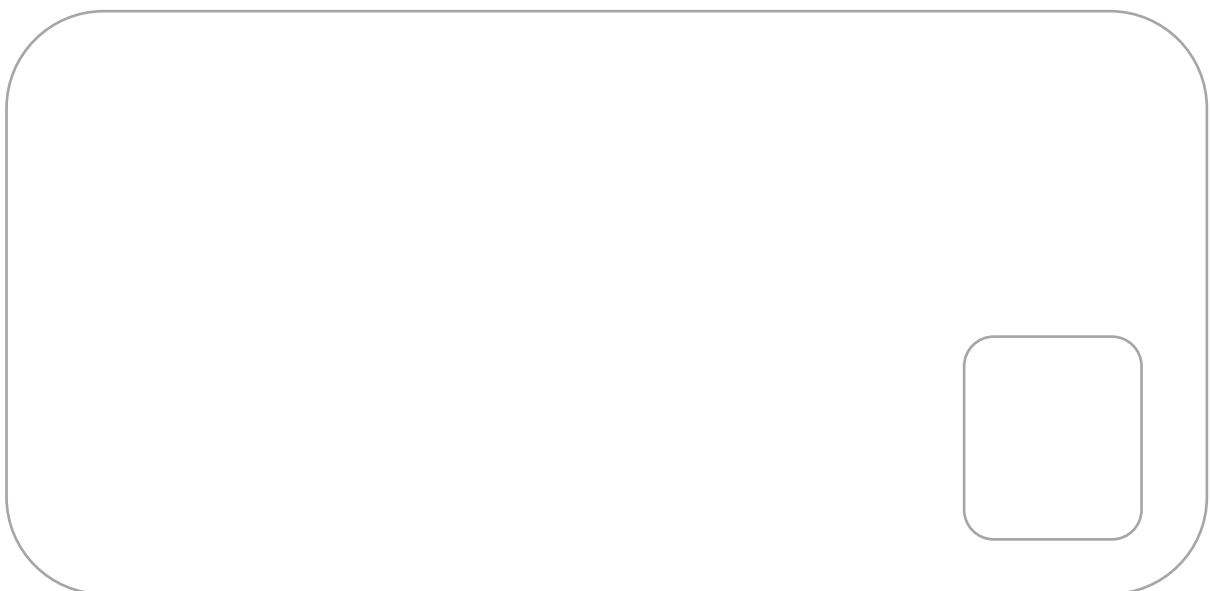
Show your working and write your answer in the box below. (2)



6) Work out, as a mixed number.

$$\frac{7}{11} + \frac{2}{3}$$

Show your working and write your answer in the box below. (2)

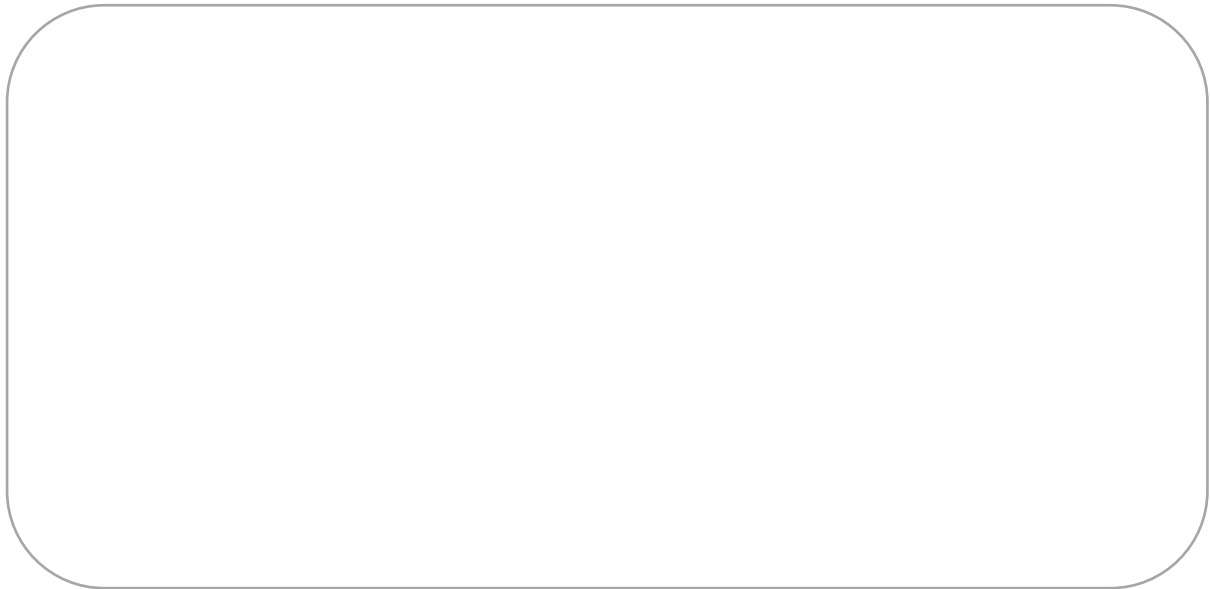


Week 3 Lesson 1 - Fractions

7) Work out $1\frac{2}{5} + 2\frac{1}{2}$

Give your answer as a mixed number.

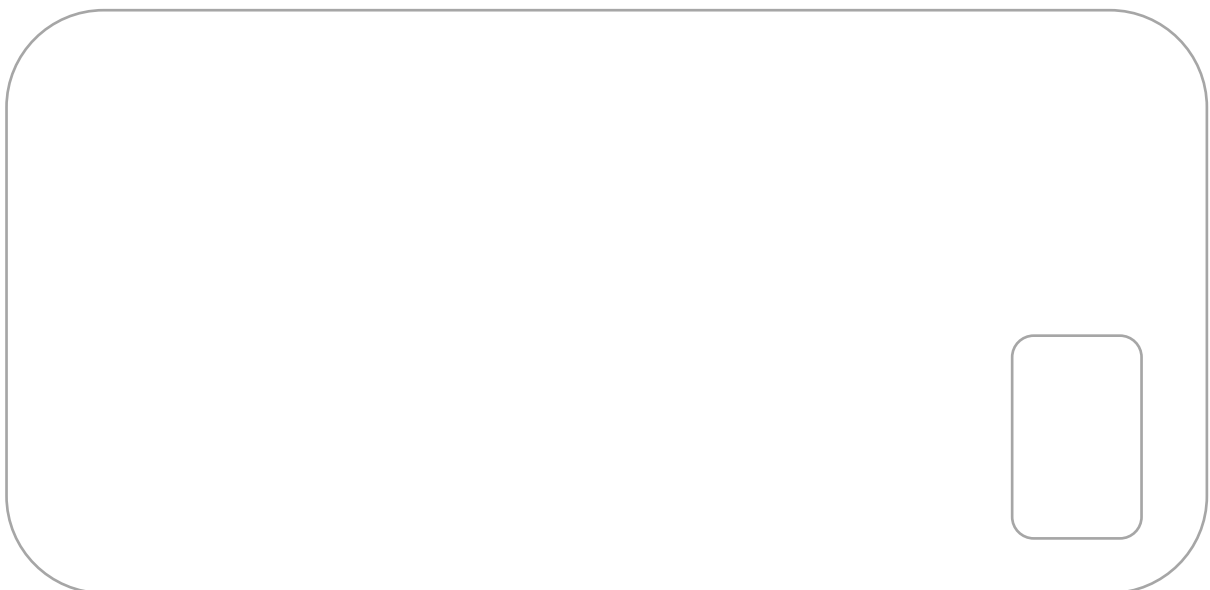
Show your working and write your answer in the box below. (3)



8) Work out $4\frac{1}{3} - 3\frac{4}{9}$

Give your answer as a fraction.

Show your working and write your answer in the box below. (3)



Week 3 Lesson 1 - Fractions

9) Matthew is training for a race.

He runs 3 days in one week.

Matthew runs $1\frac{1}{2}$ miles on Monday.

Then he runs $1\frac{2}{3}$ miles on Thursday.

Finally, he runs $2\frac{1}{5}$ miles on Sunday.

Work out how far Matthew ran in total.

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

(3)

.....miles

Week 3 Lesson 1 - Fractions

10) Of 500 people, 100 wear glasses.

Write the number of people who **do not** wear glasses as a fraction of the total number of people.

Give your answer in its simplest form.

Show your working and write your answer in the box below. (2)



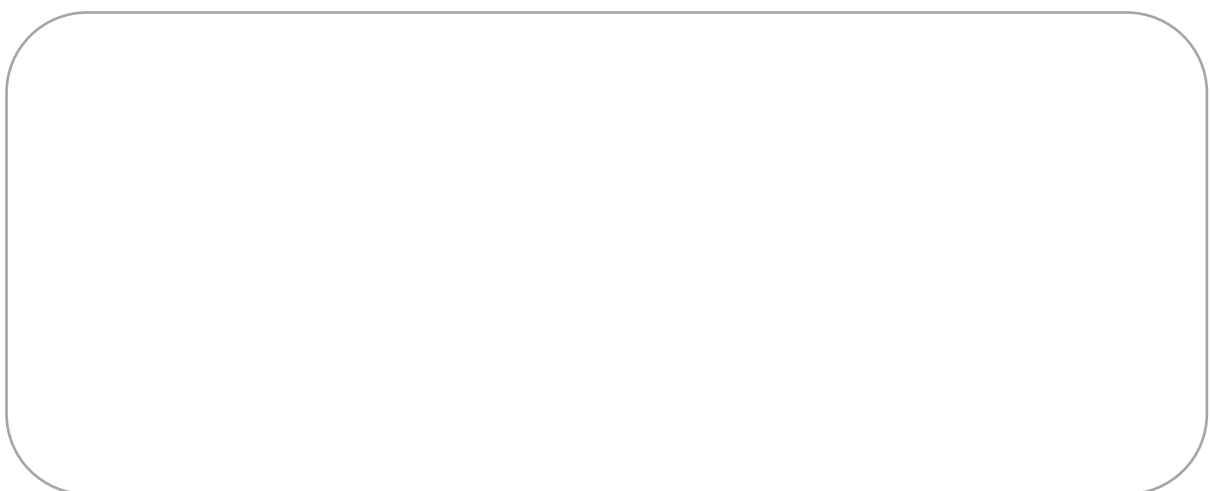
11) There are 400 pupils in a primary school.

Of the 400 pupils, 88 play a musical instrument.

Express the number of pupils who play a musical instrument as a fraction of the 400 pupils.

Give your answer in its simplest form.

Show your working and write your answer in the box below. (2)

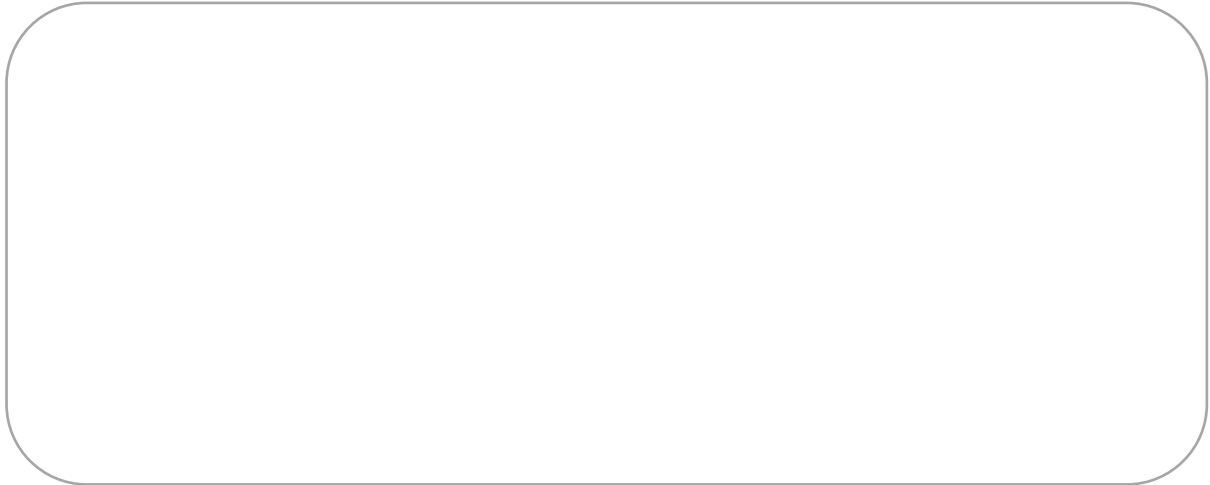


Week 3 Lesson 1 - Fractions

12) Express 50p as a fraction of £4.

Give your answer in its simplest form.

Show your working and write your answer in the box below. (2)



13) In a bag there are 80 beads.

There are 35 yellow beads.

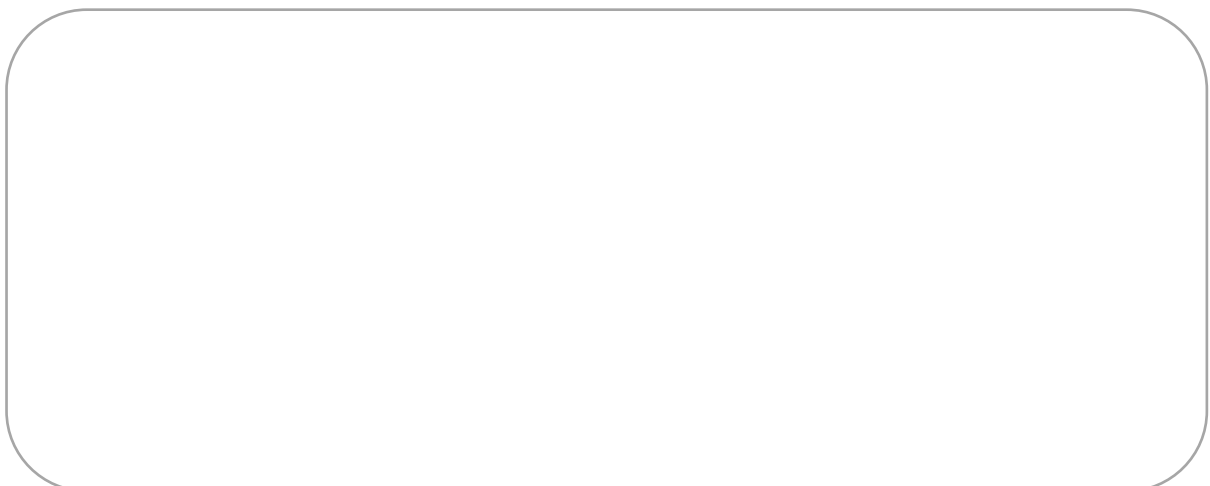
There are 17 red beads.

The rest of the beads are white.

Work out what fraction of the beads are white.

Give your answer in its simplest form.

Show your working and write your answer in the box below. (2)



Week 4 Lesson 1 - Formulae

1) Leo is an artist.

He needs to produce a painting for the opening of a new housing estate.

Leo is going to construct a symmetrical canvas for his painting.

He makes a sketch of the frame for the canvas.

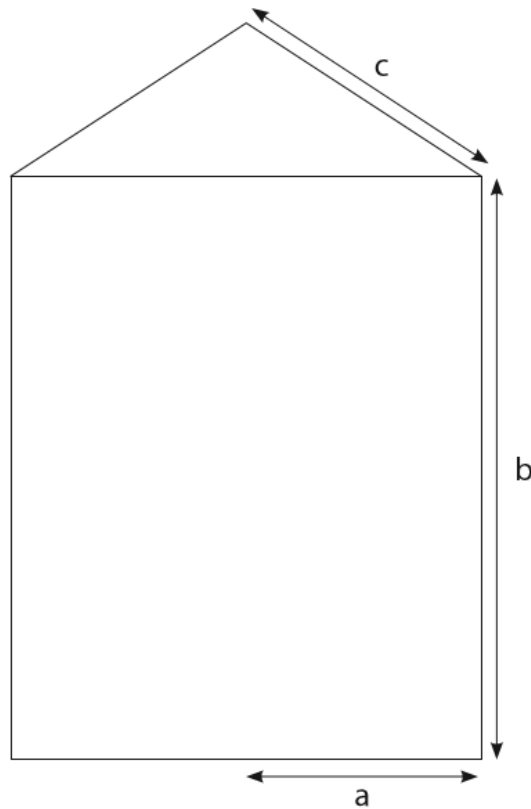


Diagram **not**
accurately drawn

Leo uses this formula to work out the total length, L mm, of the wood he needs for the frame.

$$L = 2(b + c) + 4a$$
$$a = 420 \text{ mm}$$
$$b = 1130 \text{ mm}$$
$$c = 580 \text{ mm}$$

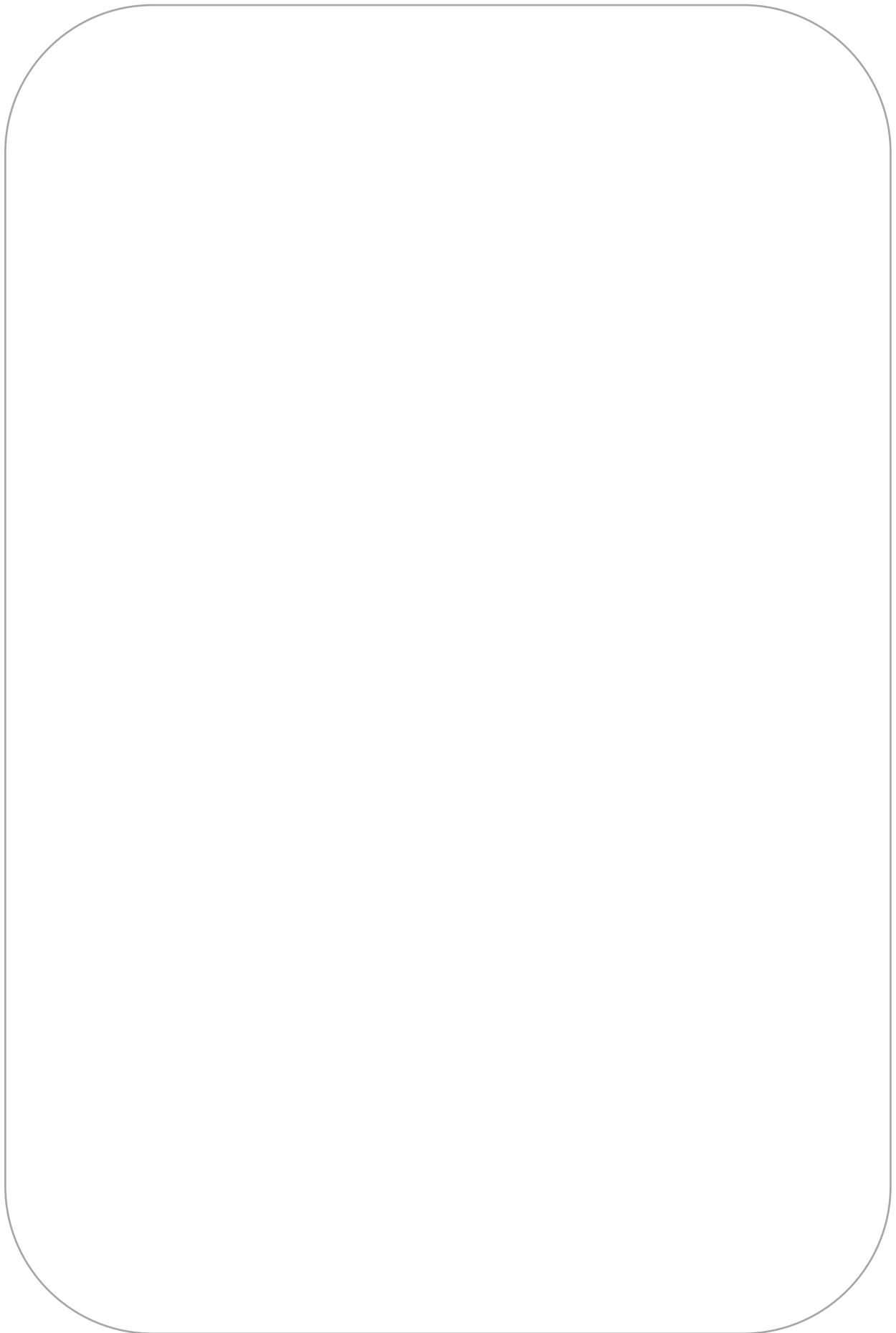
He has a 4.8m length of wood for the frame.

Is 4.8m enough wood for the frame?

Show why you think this.

(4)

Week 4 Lesson 1 - Formulae



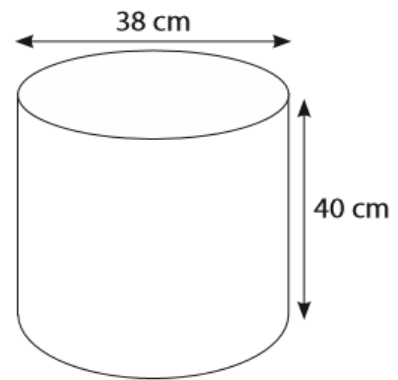
Week 4 Lesson 1 - Formulae

2) Jane plans to make some improvements to her garden.

She has a plant pot in the shape of a cylinder. The pot has diameter 38cm and height 40cm.

Jane wants to completely fill the pot with compost. Compost is sold in 20 litre bags.

Jane uses this formula for the volume of the cylinder.



$$V = 0.8d^2h$$

V is the volume in cm^3
d is the diameter in cm
h is the height in cm

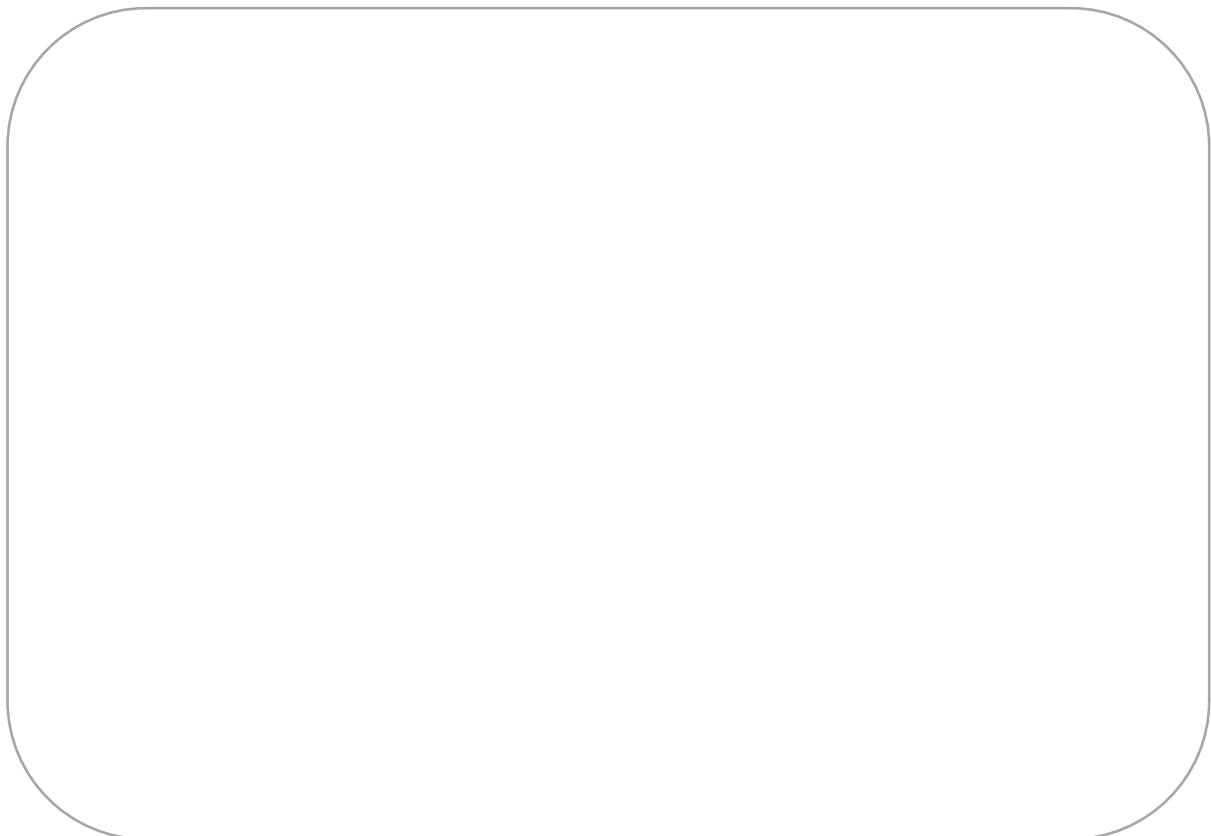
$$1 \text{ litre} = 1000\text{cm}^3$$

Jane thinks she needs 2 bags of compost to completely fill the pot.

Are 2 bags of compost enough to fill the pot?

Show a check of your working.

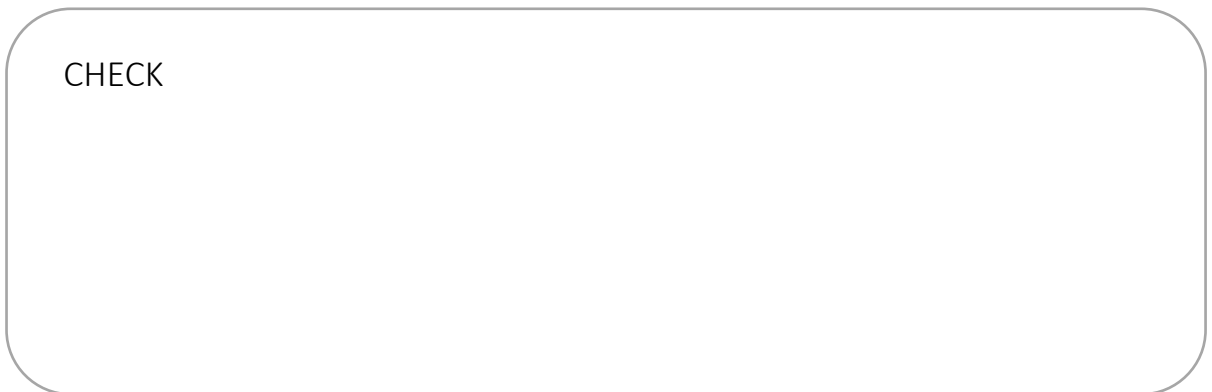
(5)



Week 4 Lesson 1 - Formulae

A large, empty rounded rectangular box with a thin black border, intended for students to write their work or calculations.

CHECK

A smaller, empty rounded rectangular box with a thin black border, located below the main box, intended for students to check their work.

Week 4 Lesson 1 - Formulae

3) Amir visits the gym.

He wants to find out his Body Mass Index (BMI).

Amir uses this formula to work out his BMI.

$$\text{BMI} = \frac{M}{H^2}$$

where M is mass (kg), H is height (m)

Amir has mass 83.3kg and height 1.75m.

A healthy BMI is between 18.5 and 25.0

Does Amir have a healthy BMI?

Show why you think this.

(3)



Week 4 Lesson 1 - Formulae

4) Freya wants to compare food storage methods between the UK and the USA. She compares the temperature at which frozen meals are stored in the UK with the temperature at which they are stored in the USA.

Temperature is measured in degrees Fahrenheit in the USA.

Freya knows this formula.

$$F = 1.8C + 32$$

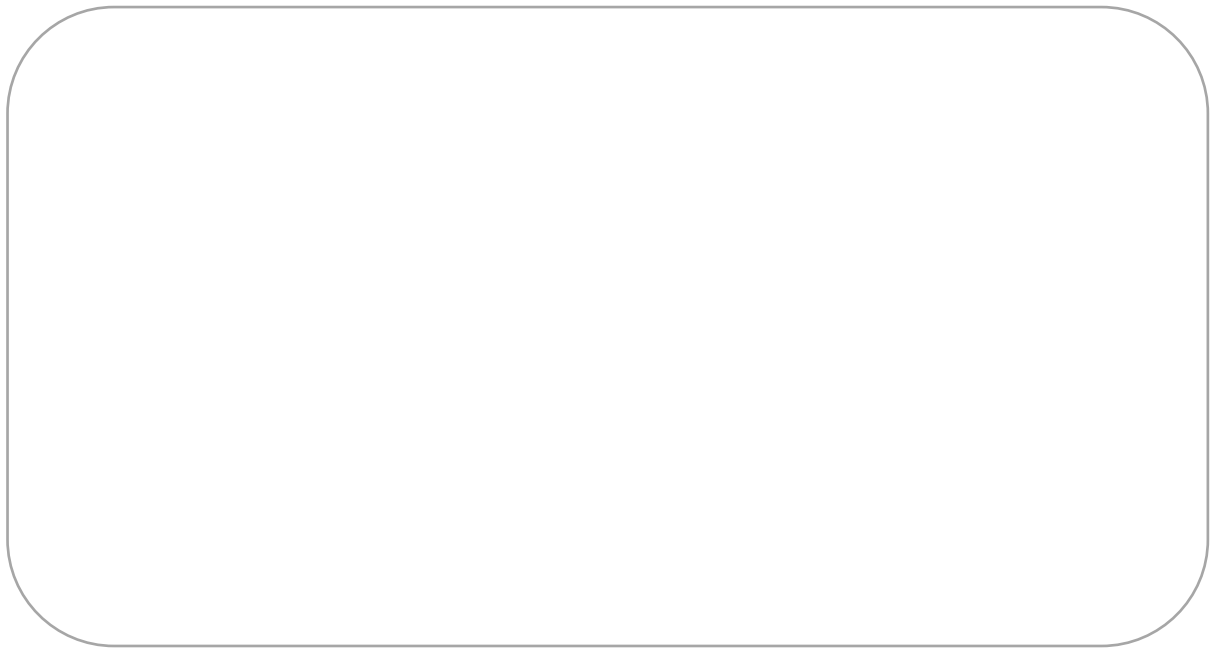
F is the temperature in degrees Fahrenheit
C is the temperature in degrees Celsius

Frozen meals are stored at -20°C in the UK.

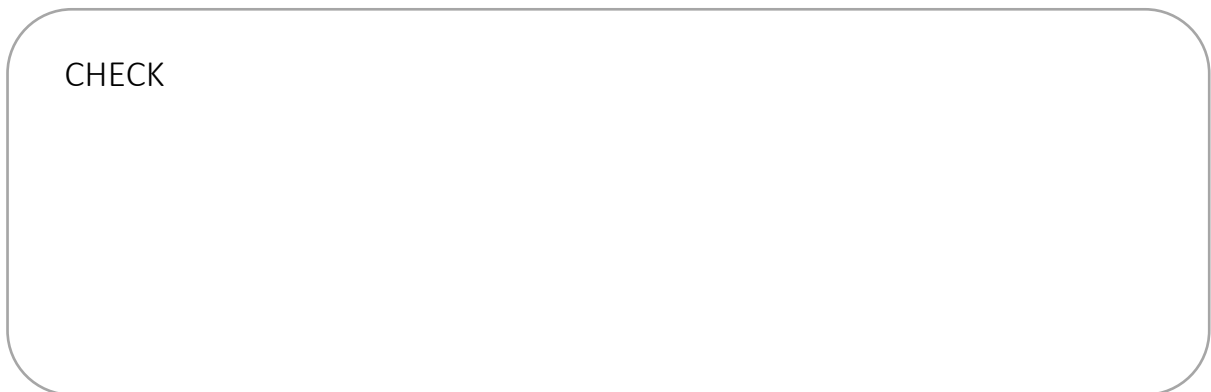
Convert -20°C to degrees Fahrenheit.

Show a check of your working.

(3)



CHECK



Week 4 Lesson 1 - Formulae

5) Companies can rent the units in the commercial centre for 3, 6 or 12 months. Jill has this data about the units rented in 2016

		Number of units rented in 2016		
		3 months	6 months	12 months
Unit size	small	10	7	5
	medium	3	8	6
	large	2	1	11

Jill needs to work out the yearly rental rate for the large units in 2016
She uses this formula

$$R = \frac{N}{168} \times 100$$

R = yearly rental rate for the large units (%)

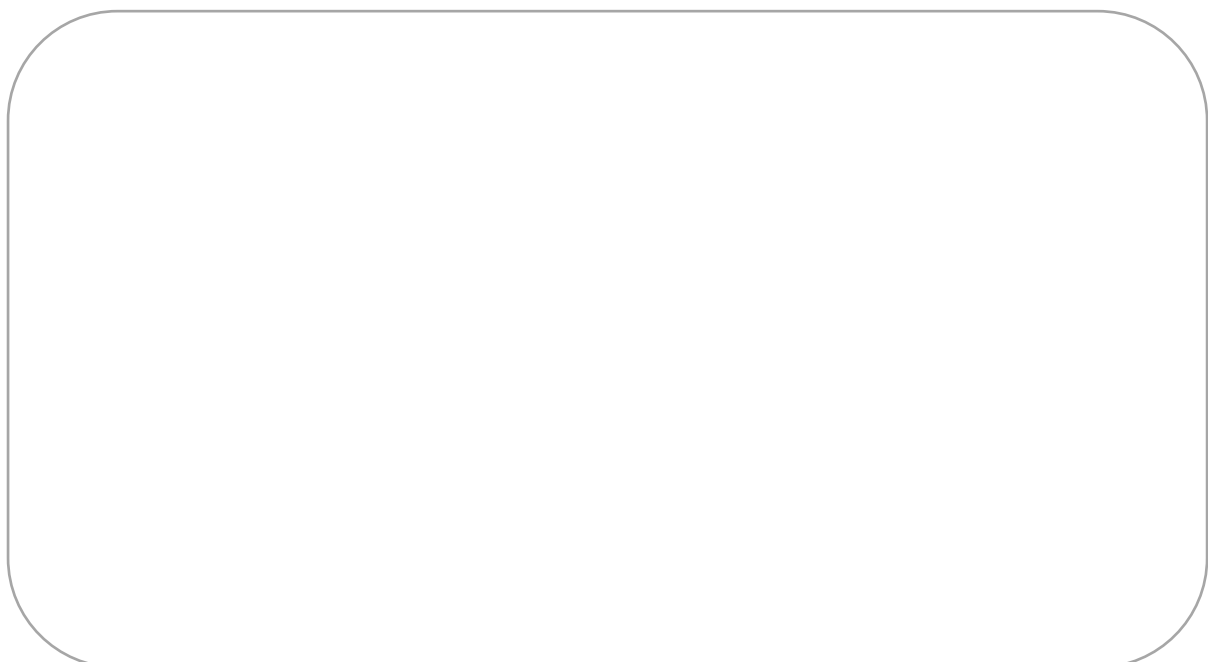
N = total number of months the large units are rented for in 2016

Jill thinks the yearly rental rate for the large units in 2016 was more than 85%.

Is Jill correct?

Show why you think this.

(3)



Week 4 Lesson 1 - Formulae

6) Barney has a gas oven.

He sets the temperature of the oven by using gas marks.

Barney uses this formula to convert 180°C to the gas mark required.

$$G = \frac{(T - 121)}{14}$$

G is gas mark
T is temperature in $^{\circ}\text{C}$

Barney thinks gas mark 6 is the same as 180°C .

Is Barney correct?

Show why you think this.

(2)



Week 4 Lesson 1 - Formulae

7) Manraj works as a lifeguard at the pool.

The manager at the pool uses this formula to work out the total pay for Manraj.

$$P = 5.8h + 8.7t$$

P = total pay (£)

h = number of contract hours worked

t = number of hours of overtime worked

Manraj works at the pool for 112 contract hours and 28 hours of overtime in July.

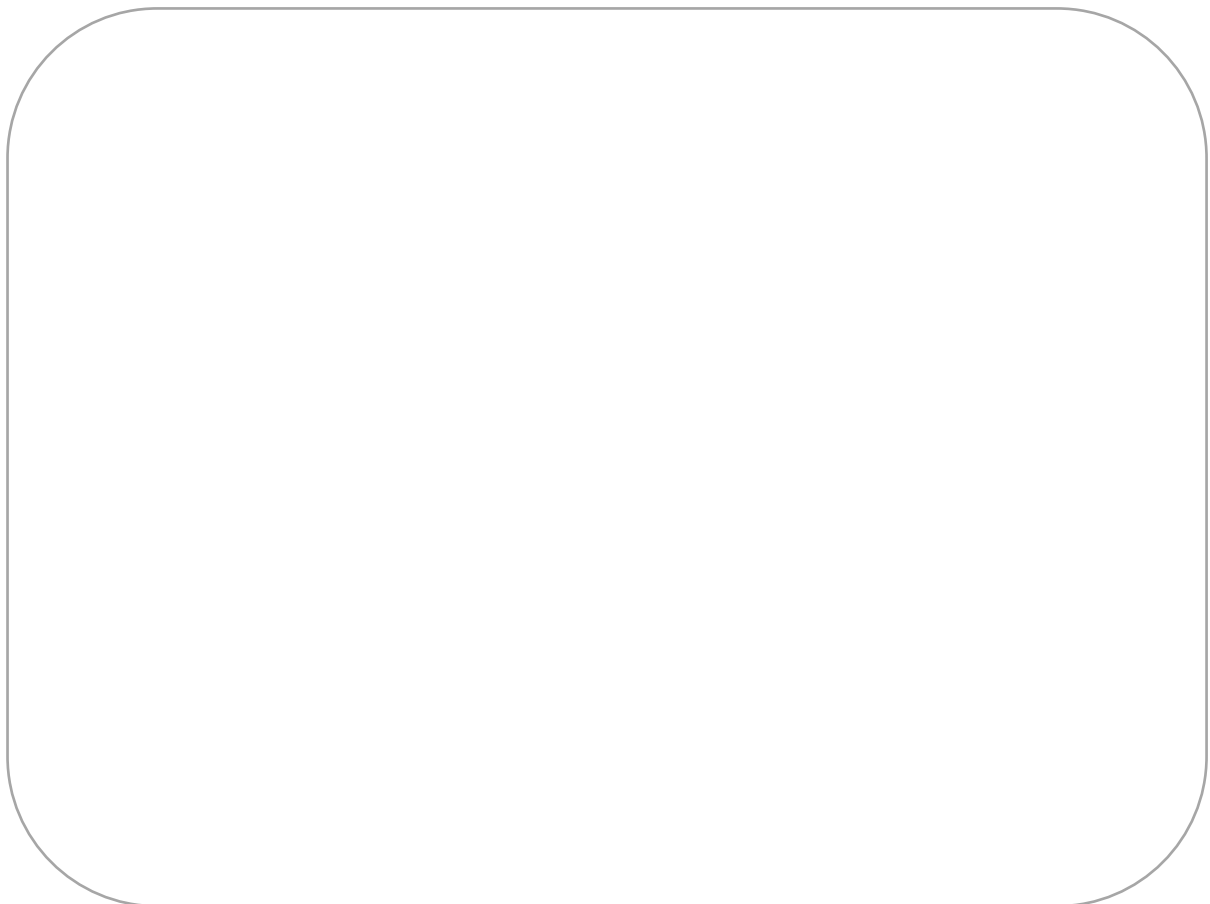
He always puts $\frac{1}{3}$ of his total pay in a savings account each month.

Manraj thinks he needs to put over £300 of his total pay in his savings account in July.

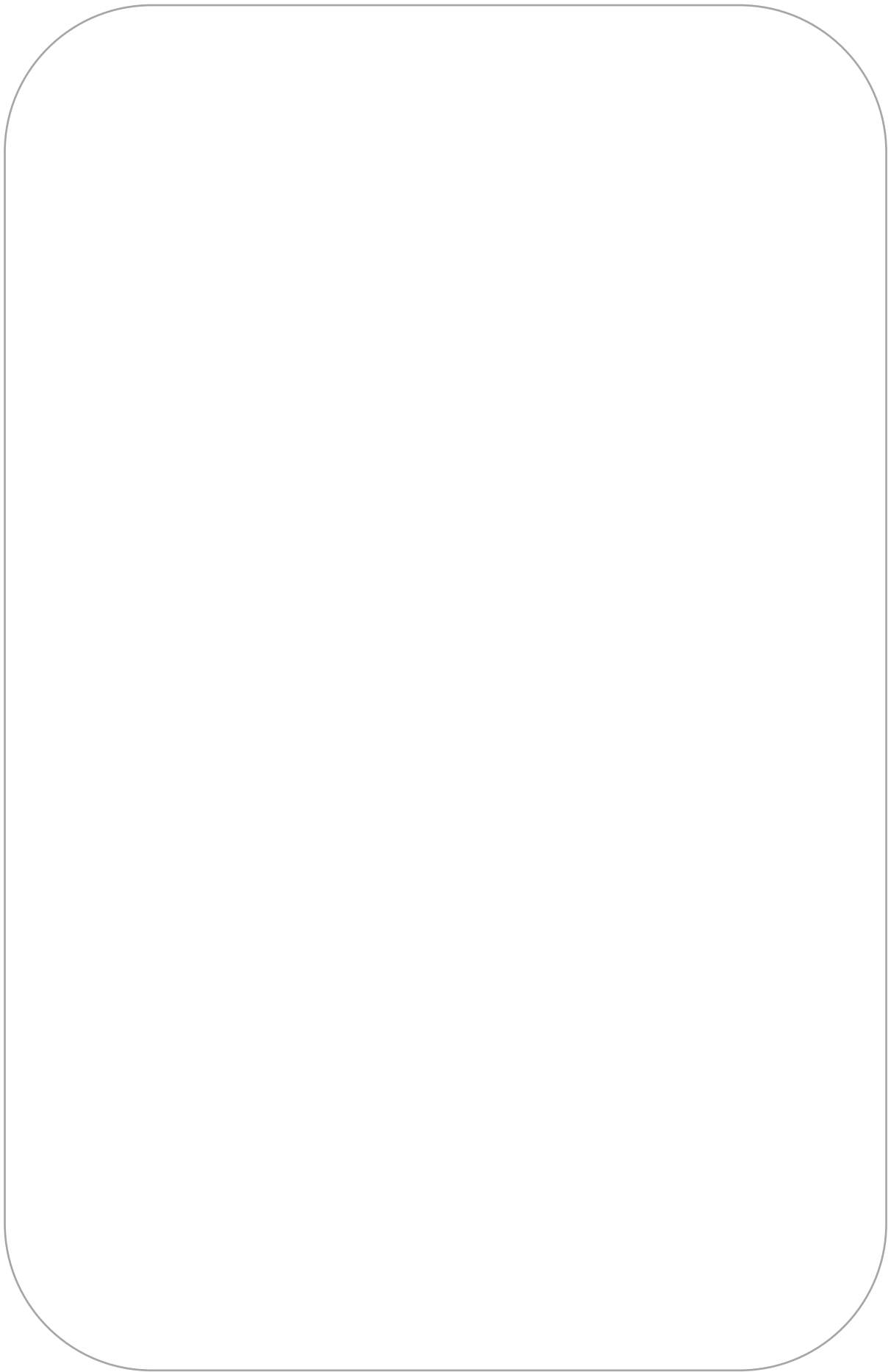
Is Manraj correct?

Show why you think this.

(4)



Week 4 Lesson 1 - Formulae



Week 4 Lesson 1 - Formulae

8) Tomas has built a raised flower bed in his garden.

He is going to fill the flower bed with compost.

Tomas uses this formula to work out the amount of compost he needs to fill the flower bed.

$$P = 3.14 \times r^2 \times d$$

r = radius of flower bed (cm)

d = depth of flower bed (cm)

P = amount of compost (cm³)

The flower bed has

- radius 80cm
- depth 28cm.

He sees this special offer.

Special Offer

50-litre bags of compost

£5.69 per bag

Buy 10 or more bags and save £0.50 per bag

Buy 30 or more bags and save £0.85 per bag

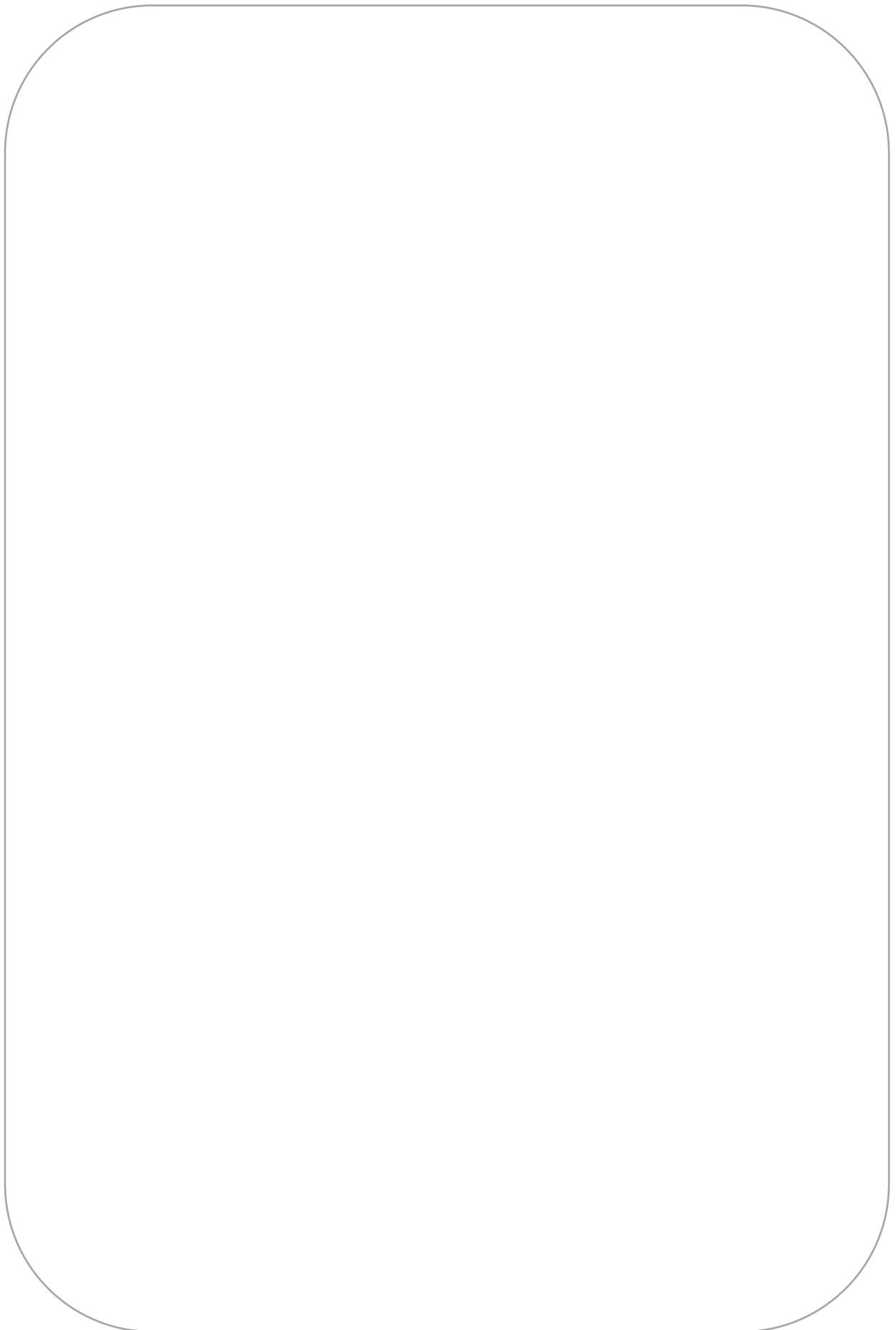
Buy 60 or more bags and save £1.14 per bag

Tomas knows that 1 litre = 1000cm³.

Work out how much it will cost Tomas to buy all the bags of compost he needs.

(6)

Week 4 Lesson 1 - Formulae



Week 4 Lesson 2 – Ratio and Proportion

1) The company also advertises its products in France.

One French website charges 195 euro per advert.


The company buys 5 of these adverts.

The exchange rate is £1 = 1.1025 euros.

What would be the total cost of the 5 adverts in pounds?

(3)

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



2) Rita is the manager of a store.

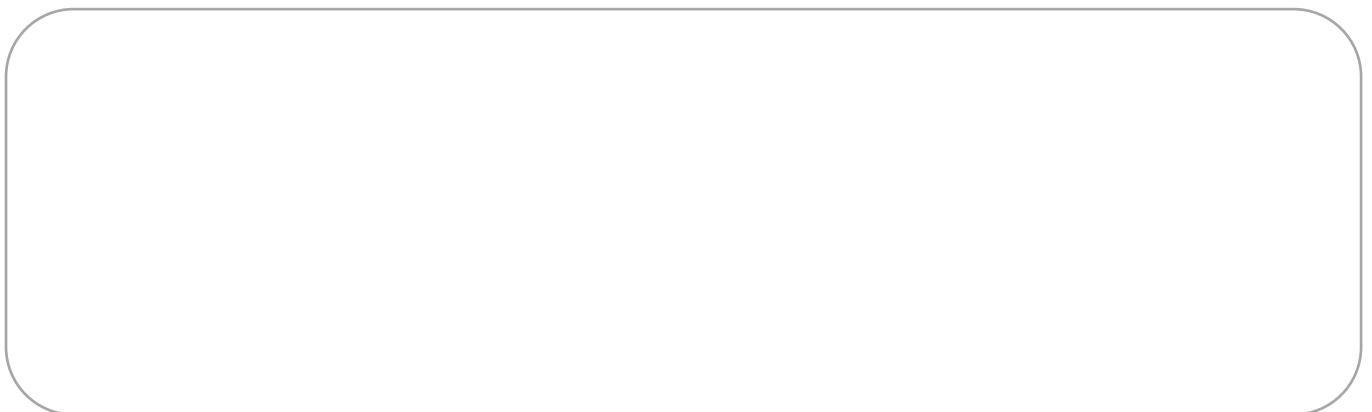
She needs the ratio of morning staff to afternoon staff to be 3:2

Rita can employ a total of 160 staff.

(a) How many morning staff and afternoon staff should Rita employ?

(3)

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



Week 4 Lesson 2 – Ratio and Proportion

b) Lucy and Amra work as salespeople in Rita's store.

Here are the sales figures for Lucy for the last 6 months.

£18 600 £19 120 £14 160 £21 650 £20 300 £15 940

Amra has a mean average sales figure of £19 065 for the last 6 months.

Who has the better mean average?

Show a check of your working.

(3)

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

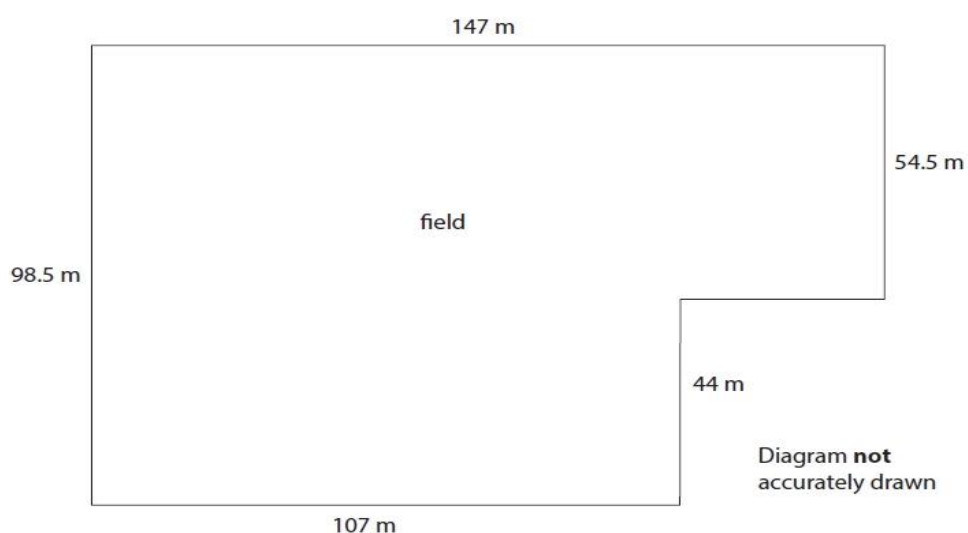
3) Martin is a farmer.

He wants to keep sheep in one of his fields.

The field is shown in the diagram below.

Martin wants to put fencing around the perimeter of the field.

He needs to leave a 3 m gap for a gate.



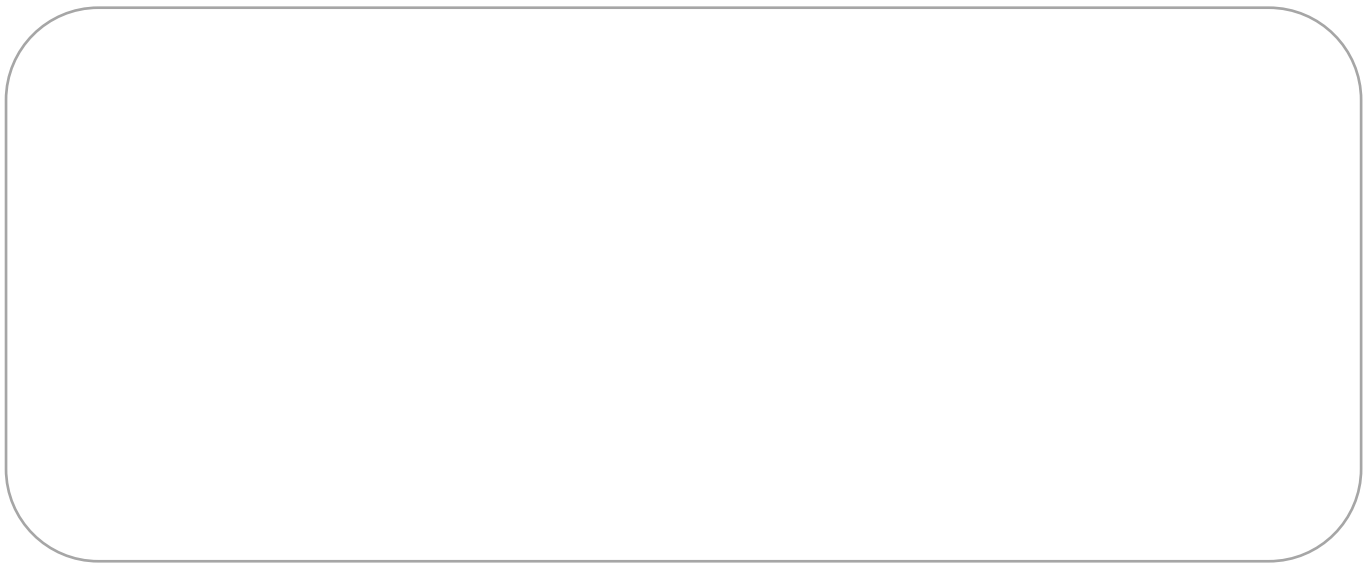
Week 4 Lesson 2 – Ratio and Proportion

Martin has 500 metres of fencing.

(a) Does Martin have enough fencing?

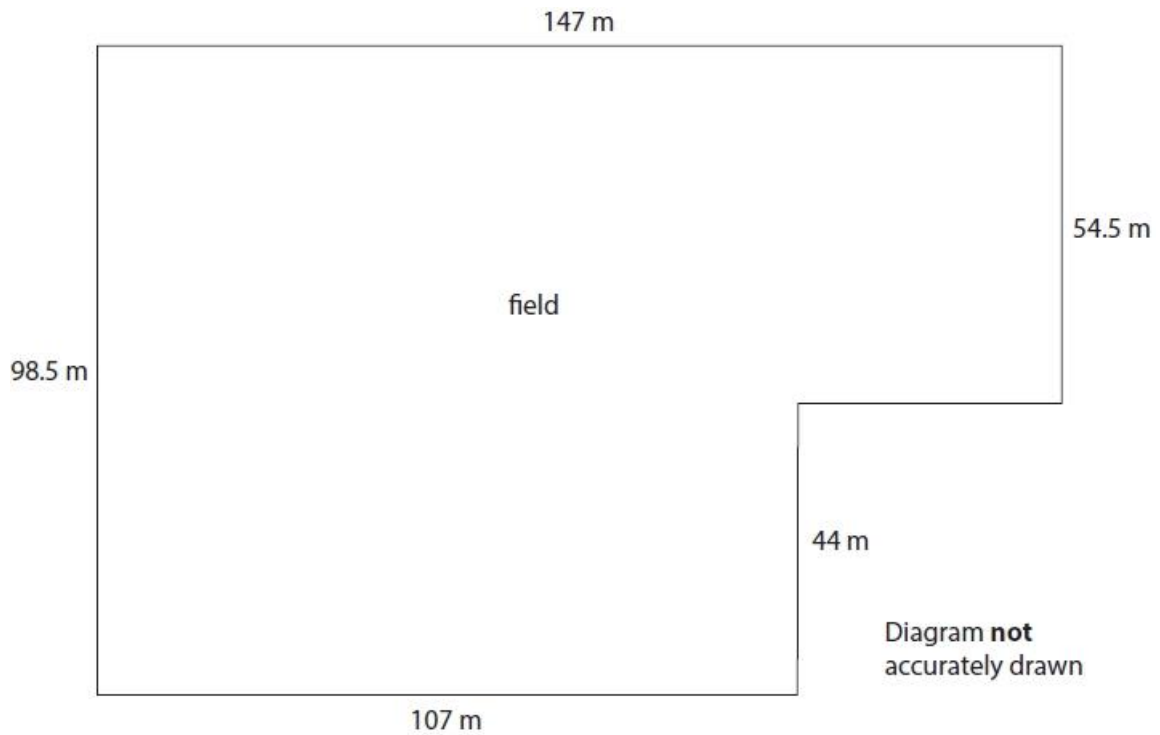
(4)

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



Martin finds out he can keep 6 sheep per acre on this field.
He wants to know the total number of sheep he can keep on this field.

Week 4 Lesson 2 – Ratio and Proportion



Use 1 acre = 4050 m²

(b) How many sheep can Martin keep on this field?

(6)

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

A large rounded rectangular box intended for the student to show their work.

4) Andy is a keen gardener.

He wants to put a shed in a corner of his garden.

The shed is rectangular 2.5 m by 1.75 m.

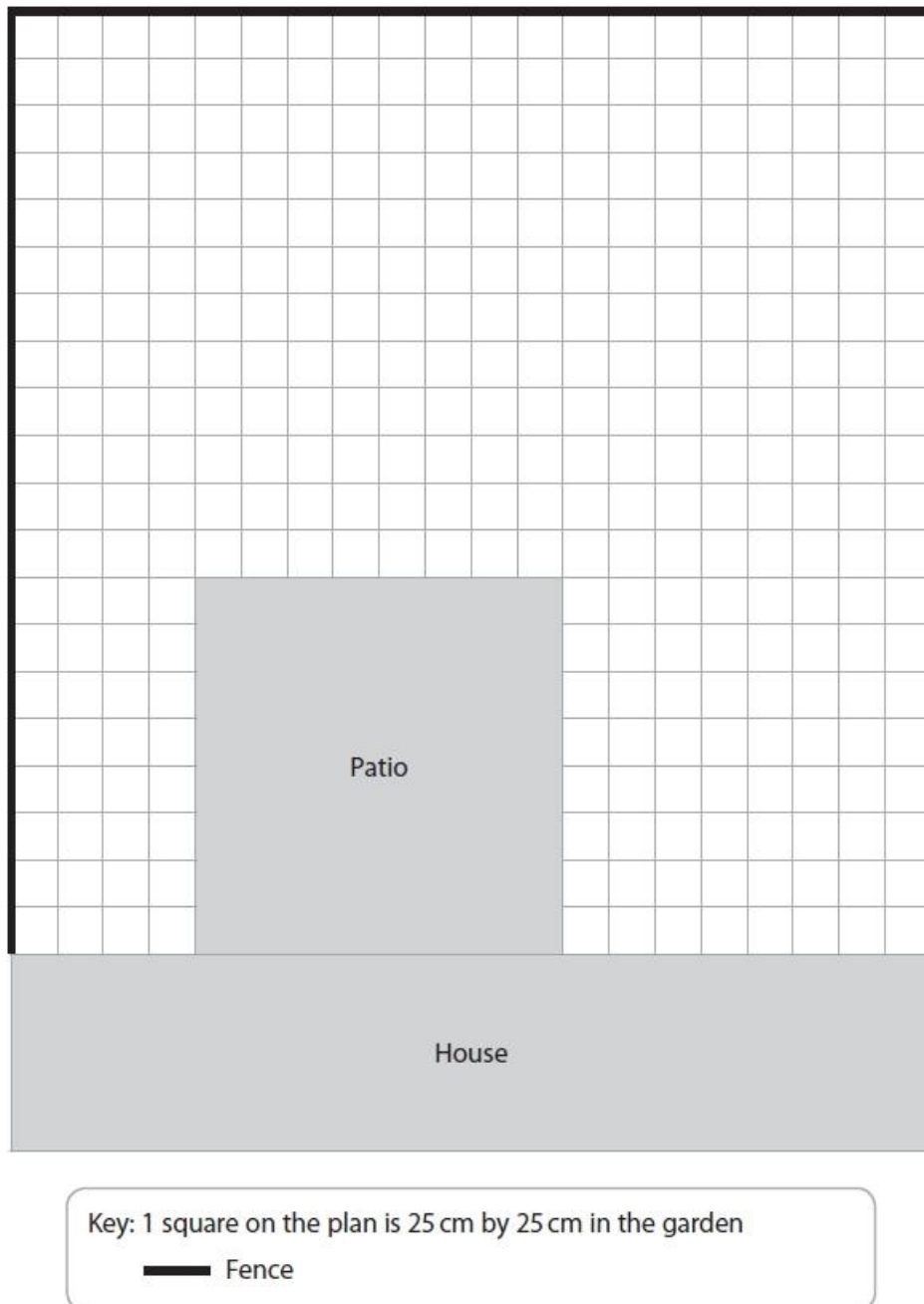
Week 4 Lesson 2 – Ratio and Proportion

He also wants a rectangular vegetable patch with an area of 6m^2 .

Andy draws a plan of his garden on a grid.

Draw and label the shed and the vegetable patch on the grid, on the next page.
Remember to use the scale in the key.

(4)

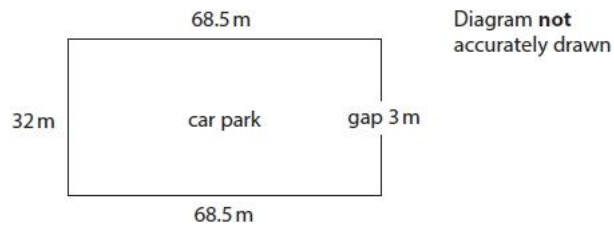


Week 5 Lesson 1 - Decimals

1) Samya is building a fence for an extra car park near the football match.

The car park is rectangular with a 3 m gap for the entrance.

Here is a sketch of the car park.



Samya has 4 rolls of fencing.

Each roll is 50 m long.

The fencing can be cut and joined together.

Are 4 rolls of fencing enough for this car park?

Show a check of your working.

(4)

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

Write your check in the space below.



Week 5 Lesson 1 - Decimals

2) Jean needs to buy a new oven for the bakery.

She finds these two offers for the same oven.

Grillo
24 monthly payments of £249.99

£180 delivery fee
Order today, delivery in 3 days

Oven World
First payment £2498.99
18 payments of £185.99
£120 delivery fee
Order today, delivery in 2 weeks

Jean wants to pay the cheapest price for the new oven.

Which offer should Jean choose?
Show why you think this.

(5)

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



Week 5 Lesson 1 - Decimals

- 3) Don is organising a comedy night for charity.
He is going to sell food at the comedy night.

Here is the price list.

Price list	
Slice of pizza	£2.75
Hot dog	£1.25
Hamburger	£1.95
Sandwich	£2.25
Chips	£1
Cake	£1.45

Don uses these instructions to work out how much money he can expect to make by selling food at the comedy night.


Work out the mean average price of all the items in the price list.
Multiply this mean average price by 80

Don thinks he can expect to make at least £140

- (a) Can Don expect to make at least £140 by selling food at the comedy night?

(4)

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



Week 5 Lesson 1 - Decimals

Don hangs this banner up at the comedy night.

For every £5 raised at the comedy night,
£1 will go to a local charity and £4 to a national charity.

The table shows the amount of money raised from different activities at the comedy night.

	Ticket sales	Food sales	Drink sales	Raffle
Amount of money raised	£400	£100	£250	£50

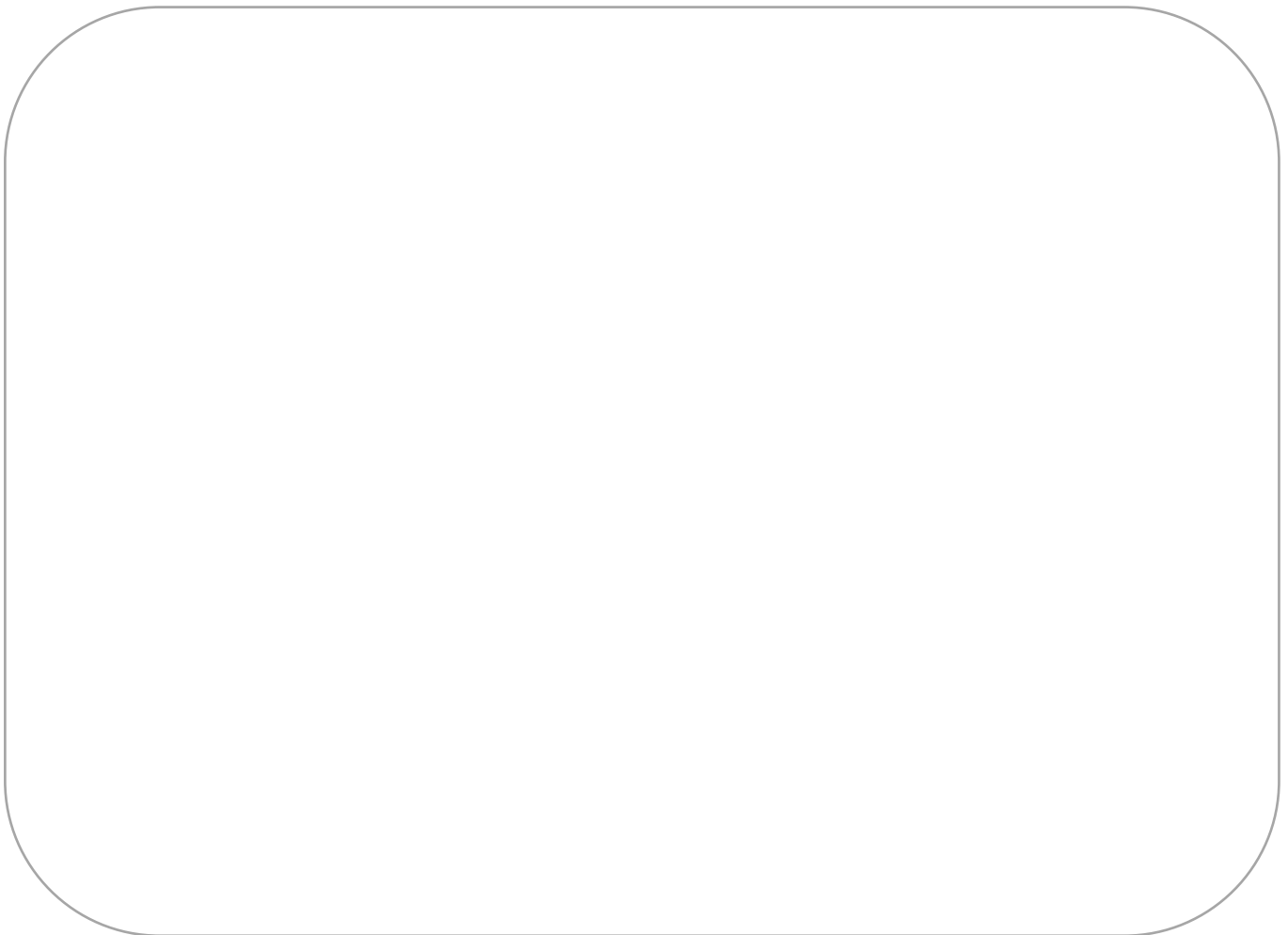
Don thinks he should give £600 to a national charity.

(b) Is Don correct?

Show why you think this.

(4)

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



Week 5 Lesson 1 - Decimals

4) Aziz needs to go from Rome to Naples and back by train.
He looks at the train timetable.

Rome (departure time)	Naples (arrival time)	Price (euros)
08:49	10:36	39.90
09:12	10:32	24.90
09:28	11:32	36.50
10:10	11:20	28.90
10:23	11:30	35.90
10:57	12:05	39.90

Naples (departure time)	Rome (arrival time)	Price (euros)
16:40	17:50	47.90
17:10	18:20	44.90
17:31	19:39	36.90
17:55	19:02	27.90
18:30	19:37	38.90
18:31	20:34	27.50

Aziz will leave his hotel in Rome after 9 am.

He allows 25 minutes to get from the hotel to the train station in Rome.

In Naples Aziz will spend

- at least 4 hours in meetings
- 1.5 hours for lunch.

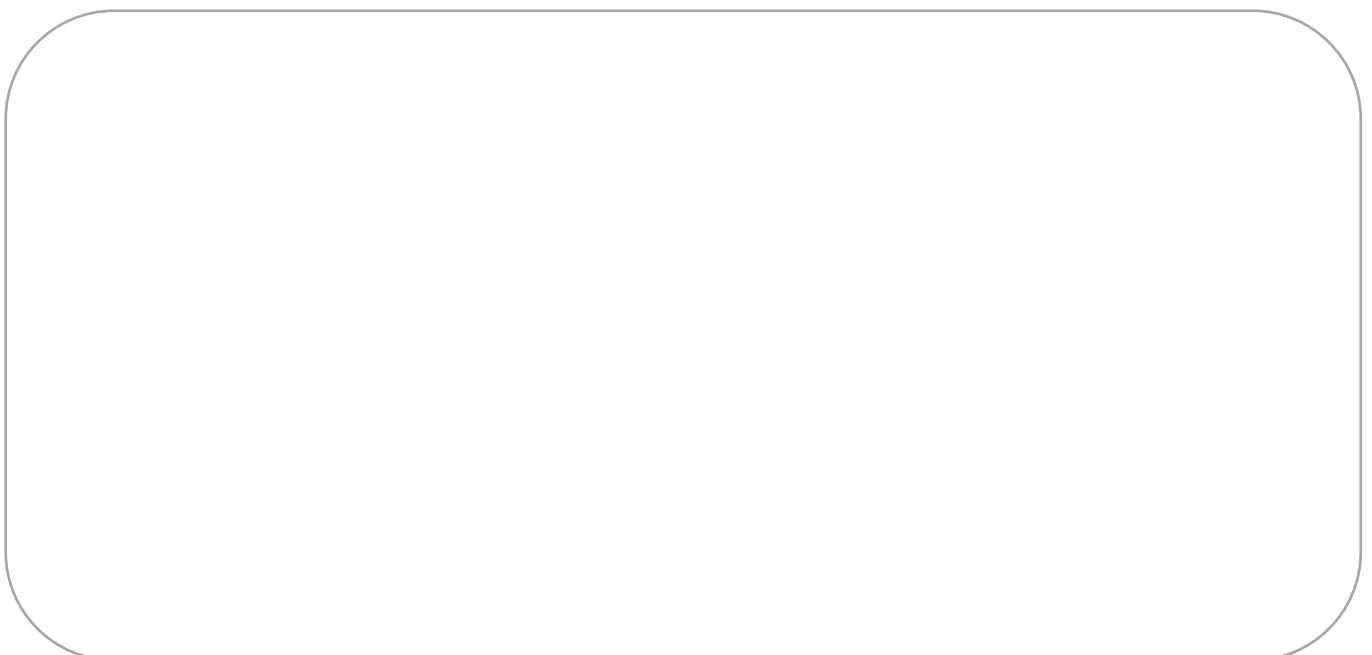
Aziz needs to be back at his hotel in Rome by 8 pm.

He needs to buy the cheapest train tickets possible.

(a) Which train from Rome to Naples and which train from Naples to Rome should Aziz take?

(3)

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



Week 5 Lesson 1 - Decimals

5) Kirsty is going to organise a birthday party for her daughter.

She makes these notes about two party options.

Village hall	Princess party
Hire the hall for 3 hours at £30 per hour	Includes venue hire, entertainer and party bags
Entertainer fee – £150	£299 (for up to 15 children)
Lunch – £6.80 per child	Lunch – £4.49 per child
Party bags – £2.29 for 6 bags	

There will be a total of 12 children at the party.

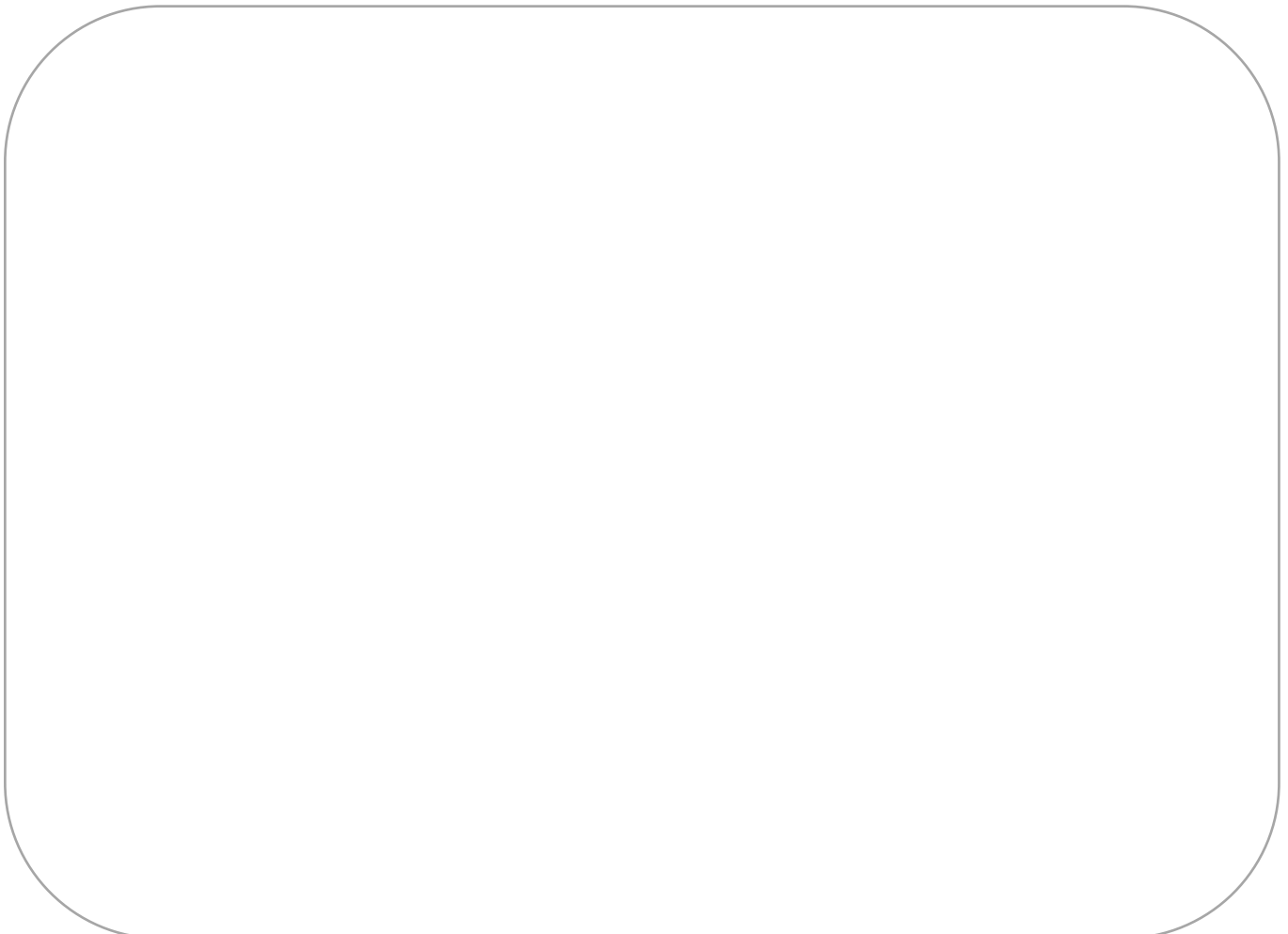
Kirsty has a budget of £400 for the party.

Which option should Kirsty choose for the party?

Give a reason for your answer with figures.

(6)

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



Week 5 Lesson 1 - Decimals

6) The dancers use sticks in some of the dances.
Jane needs some ribbon to tie on the sticks.



She needs to buy enough ribbon for 20 sticks.

Each stick has 8 pieces of ribbon.
Each piece of ribbon is 30 cm long.

The ribbon is sold in rolls.

Each roll has 25 m of ribbon.

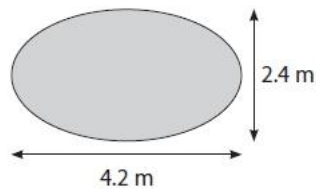
(b) How many rolls of ribbon does Jane need to buy?

(3)

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

A large, empty rectangular box with rounded corners, intended for the student to show their work.

7) Carlos wants to build a pond in his garden.



He digs a hole for the pond

- 4.2 m long
- 2.4 m wide
- 75 cm deep.

Carlos wants to buy a liner for the pond.

He finds this formula to work out the dimensions of the liner he needs.

$$L = 2d + p$$
$$W = 2d + t$$

L = length of liner (m)
 W = width of liner (m)
 d = depth of pond (m)
 p = length of pond (m)
 t = width of pond (m)

Carlos sees three different pond liners in a garden centre.

Liner	Dimensions
A	5.5 m by 4 m
B	5 m by 5 m
C	6.5 m by 4.5 m

(a) Which liner should Carlos buy?

Show why you think this.

(3)

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

Week 5 Lesson 1 - Decimals

Carlos needs to buy equipment for his garden pond.

Pond equipment	
Pond liner	£240.99
Water pump	£74.98
Water filter	£79.99
Cables	£18.98

He needs to buy 2 cables and 1 of each of the other items.

Carlos uses a voucher for $\frac{1}{5}$ off the cost of the pond liner.

(b) How much will Carlos pay in total?

Show a check of your working.

(4)

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

Carlos lines the pond and needs to fill it with water.

He works out the pond will hold 5900 litres of water.

Carlos knows

- the rate of flow of water from his garden hose is 10 gallons per minute
- 1 gallon is 4.5 litres.

He thinks it will take about 2 hours to put 5900 litres of water into the pond.

(c) Is Carlos correct?

Show why you think this.

(4)

Week 5 Lesson 1 - Decimals

8) Pat and Chris are going on holiday to Tenerife.

The time in Tenerife is the same as the time in London.

Pat finds this information on the internet.

London to Tenerife		
Flight number	Departure time	London airport
A101	06 45	Stansted
A102	07 35	Gatwick
A103	11 50	Stansted
A104	13 10	Gatwick
A105	13 45	Luton
A106	14 10	Luton
A107	16 40	Gatwick

Tenerife to London		
Flight number	Departure time	London airport
B201	11 50	Stansted
B202	12 45	Gatwick
B203	16 25	Stansted
B204	18 10	Luton
B205	18 30	Gatwick
B206	19 35	Luton
B207	21 50	Gatwick

Pat and Chris are going to fly from a London airport to Tenerife.

They must fly back from Tenerife to the same airport they left from.

All flights take 4 hours.

Pat and Chris want to arrive in Tenerife before 2 pm.

They want their flight back from Tenerife to leave after 2 pm.

(a) Which flights should they choose?

(2)

Write your answer in the space below.

Week 5 Lesson 1 - Decimals

Pat is going to rent a villa in Tenerife.
It costs 960 euros to rent the villa.

Pat is going to pay for the villa by bank transfer.
The bank charges £25 for the transfer.

Pat uses £1 = 1.17 euros.

Pat tells Chris it is going to cost less than £850 to pay for the villa and the transfer.

(b) Is Pat correct?

Show why you think this.

(4)

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



9) Emma runs a network marketing agency.

Emma sells hair products directly to customers.
She also has agents who sell hair products.

Emma gets a percentage of the sales value as commission every time she sells to a customer or an agent.

Her friend Claire wants to buy £135 of hair products.

Emma has two options.

Option 1: Sell the hair products to Claire as a customer and get 24% commission.

Option 2: Recruit Claire as an agent and get £25 plus 8% commission.

Emma thinks she will make more money on this sale if she chooses option 2

(a) Is Emma correct?

Show why you think this.

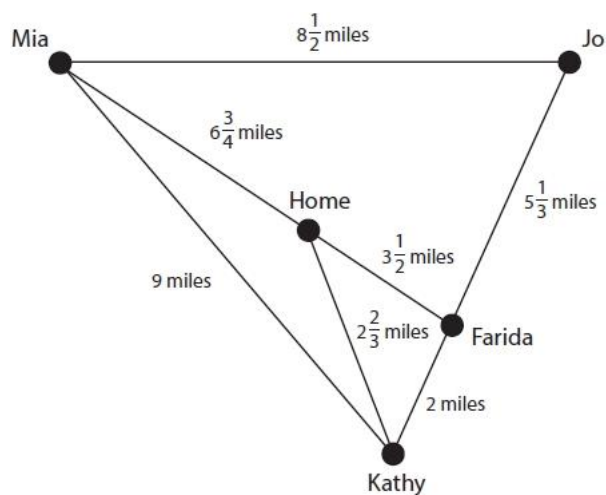
(3)

Week 5 Lesson 1 - Decimals

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

Emma has to deliver hair products to 4 of her agents.
She needs to start and finish at her home.

Emma uses this diagram to help her find a route.



(b) Find a route for Emma.

How far does she travel?

Evaluate your route.

(3)

Week 5 Lesson 1 - Decimals

10) Tim wants to cook some lamb.

He has these instructions to cook the lamb.

Cook at 180°C for 25 mins per pound in weight plus 20 mins

The lamb weighs 3.5 kg.

1 kg = 2.2 pounds

(a) How long will it take to cook the lamb?

(3)

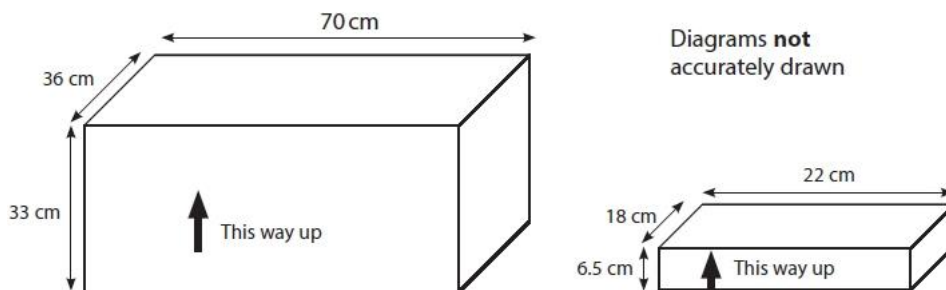
Use the space below to show clearly how you get your answer.

Tim puts each meal into a box.

Each box is in the shape of a cuboid 22 cm by 18 cm by 6.5 cm.

The boxes will then be stacked into crates.

A crate is in the shape of a cuboid 70 cm by 36 cm by 33 cm.



Each box must be placed in the crate so that the arrow on the side of the box points upwards.

Tim can stack the boxes on top of each other.

He thinks he can place a maximum of 24 boxes into one crate.

Week 5 Lesson 1 - Decimals

(b) Is Tim correct?

Show why you think this.

(3)

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



Week 5 Lesson 2 – Scales

1) Andy is a keen gardener.

He wants to put a shed in a corner of his garden.

The shed is rectangular 2.5 m by 1.75 m.

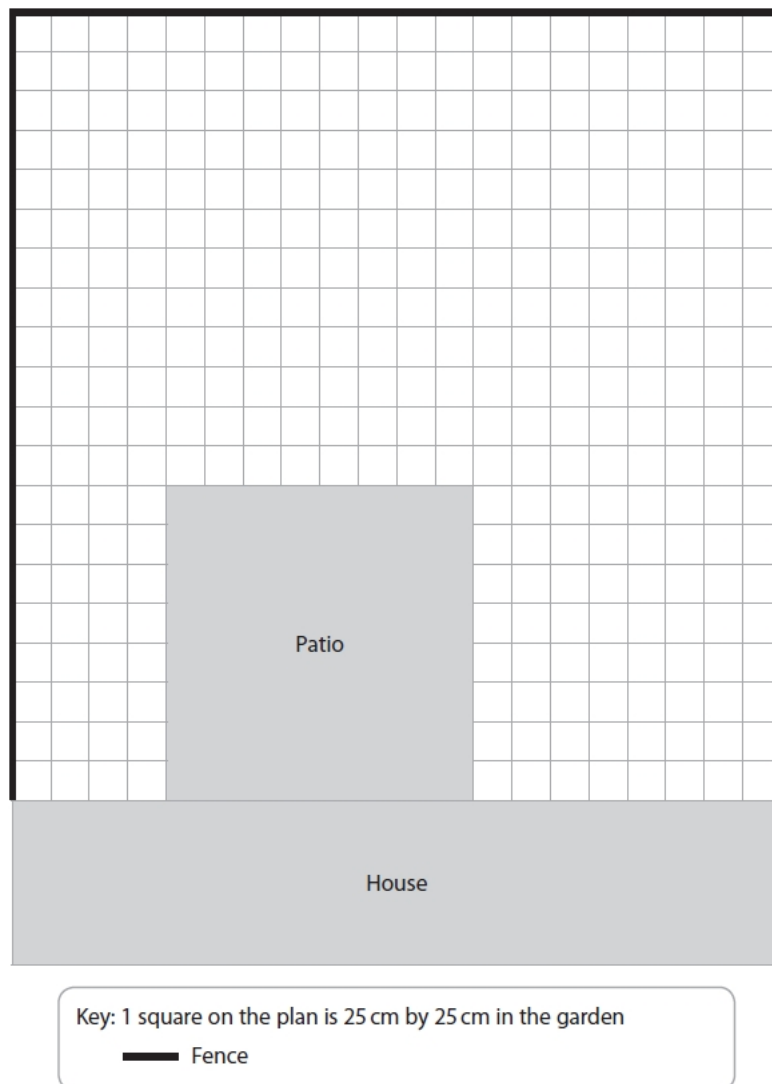
He also wants a rectangular vegetable patch with an area of 6m^2 .

Andy draws a plan of his garden on a grid.

Draw and label the shed and the vegetable patch on the grid.

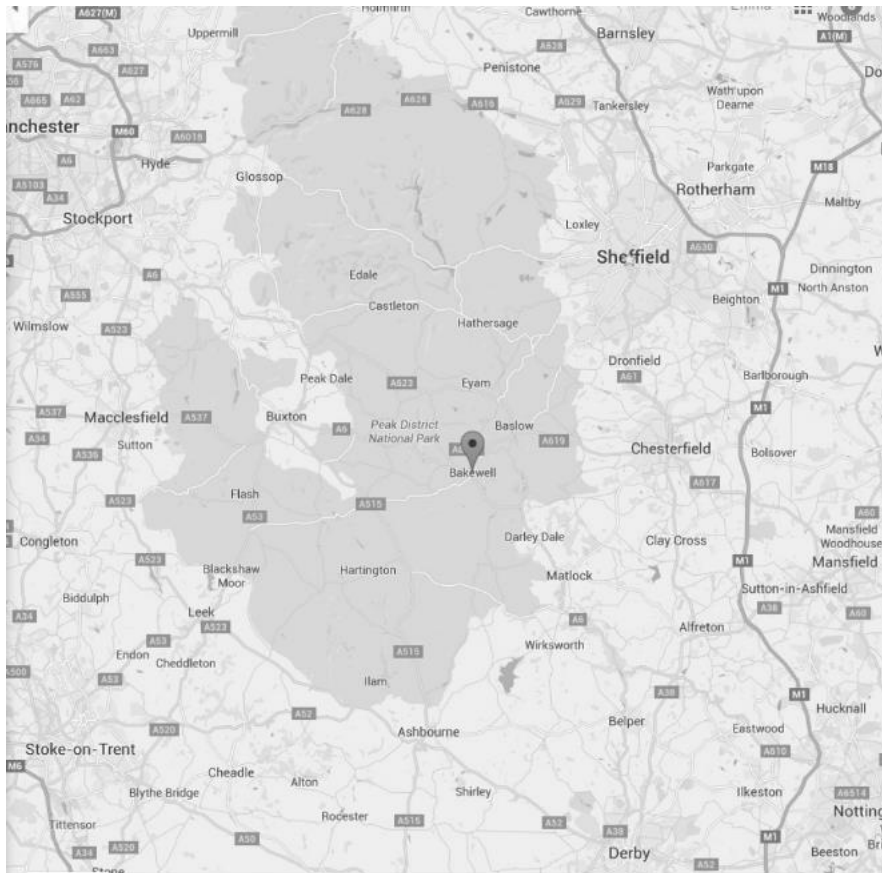
Remember to use the scale in the key.

(4)



Week 5 Lesson 2 – Scales

- 2) Jabed is going to follow the hot air balloon.
He knows the hot air balloon can land up to 30 km away from Bakewell.



Scale 1 : 500 000

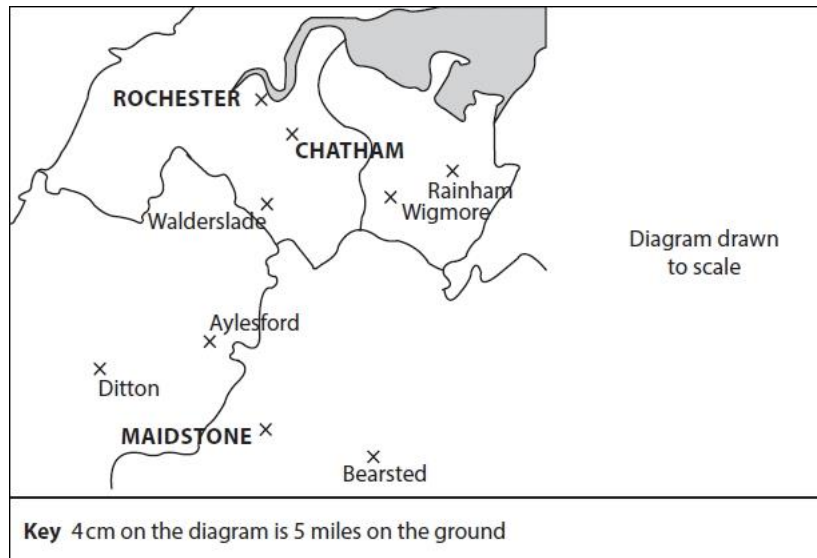
Jabed wants to show, on the map, where the hot air balloon can land.
Use the scale and show accurately on the map where the hot air balloon can land.

(4)

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

A large, empty rounded rectangular box provided for the student to draw or show their work.

3) Lucas offers free delivery to places within a 6 mile radius of Chatham.



Sarah lives in Maidstone.

She buys a TV sound bar from Lucas.

Sarah wants to know if she will get free delivery.

(b) Will Sarah get free delivery?

Show why you think this.

(3)

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

Week 5 Lesson 2 – Scales

4) Kei is a landscape artist.

A client asks Kei to landscape his garden.

Kei designs a fish pond for the garden.

The pond needs

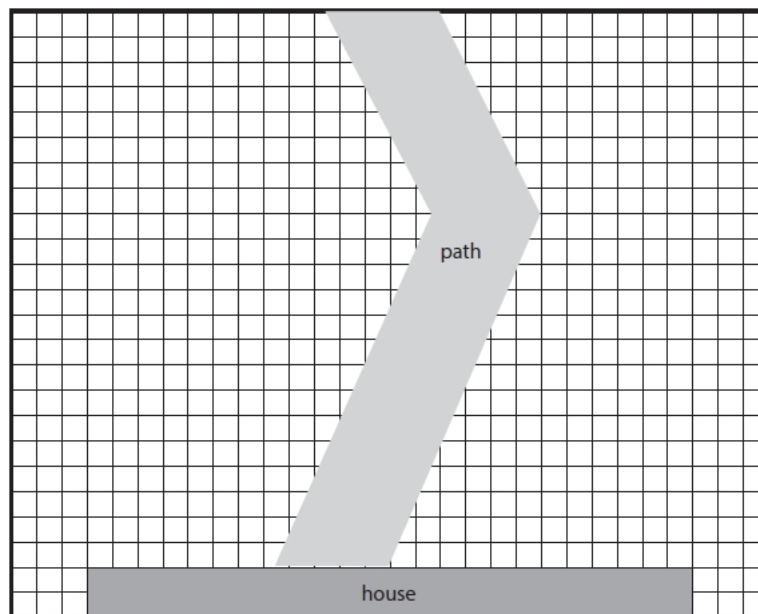
- a circular space with diameter 2.5 m
- to be at least 0.5 m from the path and from the fence
- to be at least 1.5 m from the house.

Kei makes an accurate plan of the garden using a scale of 1:50

(a) Draw a space for the pond on the plan.

Remember to use the scale.

(3)

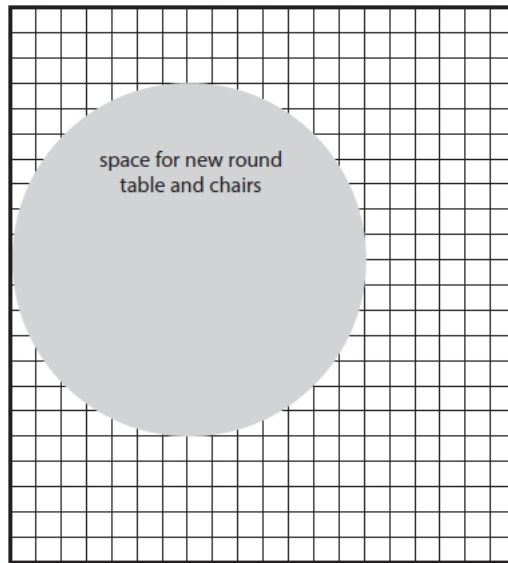


Scale 1 : 50
Key — fence

- 5) Tomiko is planning a housewarming dinner for her friends.
She wants to buy a new round table for her dining room.

Tomiko has this floor plan of her dining room.

She has shaded the total space needed for
the new round table and
1 extra metre all around the table for chairs.



scale 1 : 50

Tomiko thinks that a round table with a diameter of 1500 mm is the biggest table that can fit in this space.

Is she correct?

Show why you think this.

(4)

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

A large, empty rounded rectangular box provided for the student to show their work.

Week 5 Lesson 2 – Scales

6) Katie wants a space to grow lettuce on her allotment.

She wants this space to be rectangular with an area of 5 m^2 to 6 m^2 .

Katie needs a path around the space.

The path should be at least 150 cm wide.

She makes a plan of her allotment.

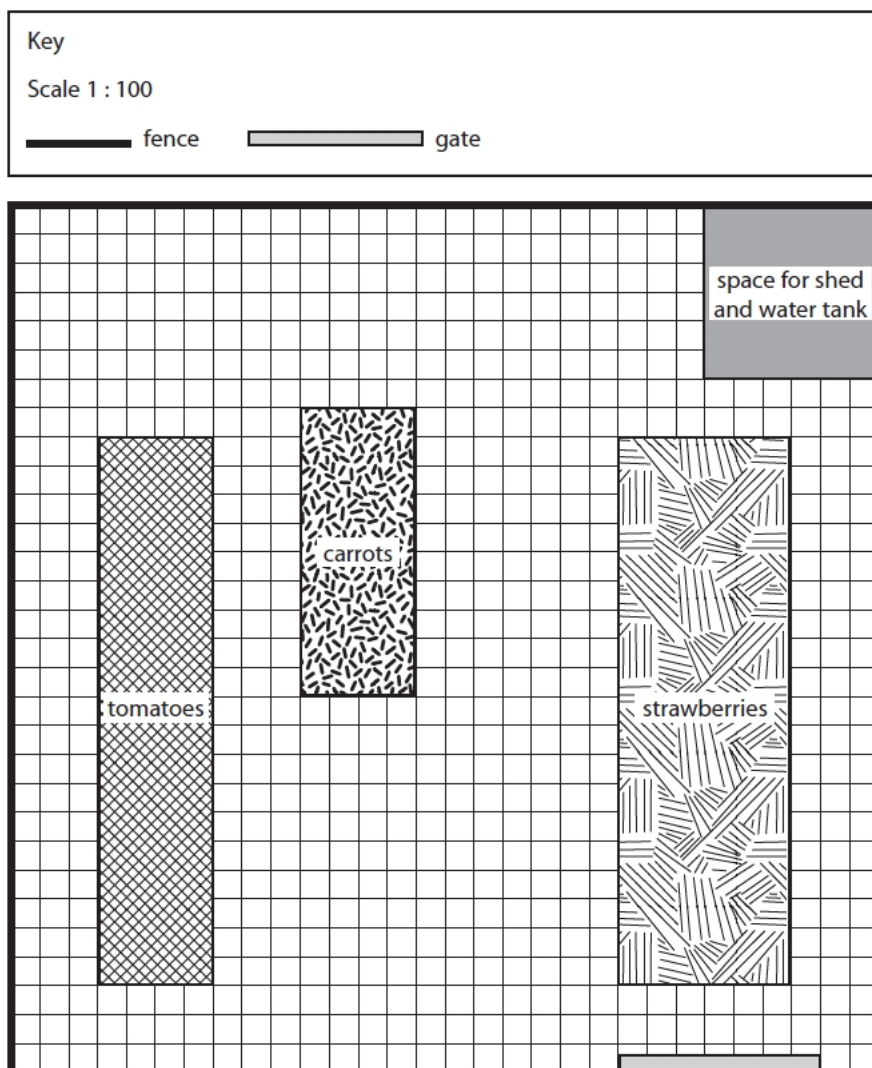
(a) Draw the space for the lettuce and the path on the plan.

Remember to use the key.

(3)

(b) Evaluate the effectiveness of your plan.

(1)



Week 6 Lesson 2- Measurement

1) Hayley and Tristan are getting married.

Adnan offers them the use of his garden for their wedding.

He wants to put lighting around part of the garden.

The perimeter of this part of the garden is 55m.

The lighting Adnan wants to order is sold in lengths of 25 feet and in lengths of 40 feet.

He uses the conversion 1 foot = 0.3 metres.

What combination of lengths of lightings should Adnan order to have enough to go round the garden?

Evaluate the effectiveness of your answer.

(4)

Use the box below to write your evaluation.



Week 6 Lesson 2- Measurement

- 2) Pat is going to rent a villa in Tenerife.
It costs 960 euros to rent the villa.

Pat is going to pay for the villa by bank transfer.
The bank charges £25 for the transfer.

Pat uses £1 = 1.17 euros.

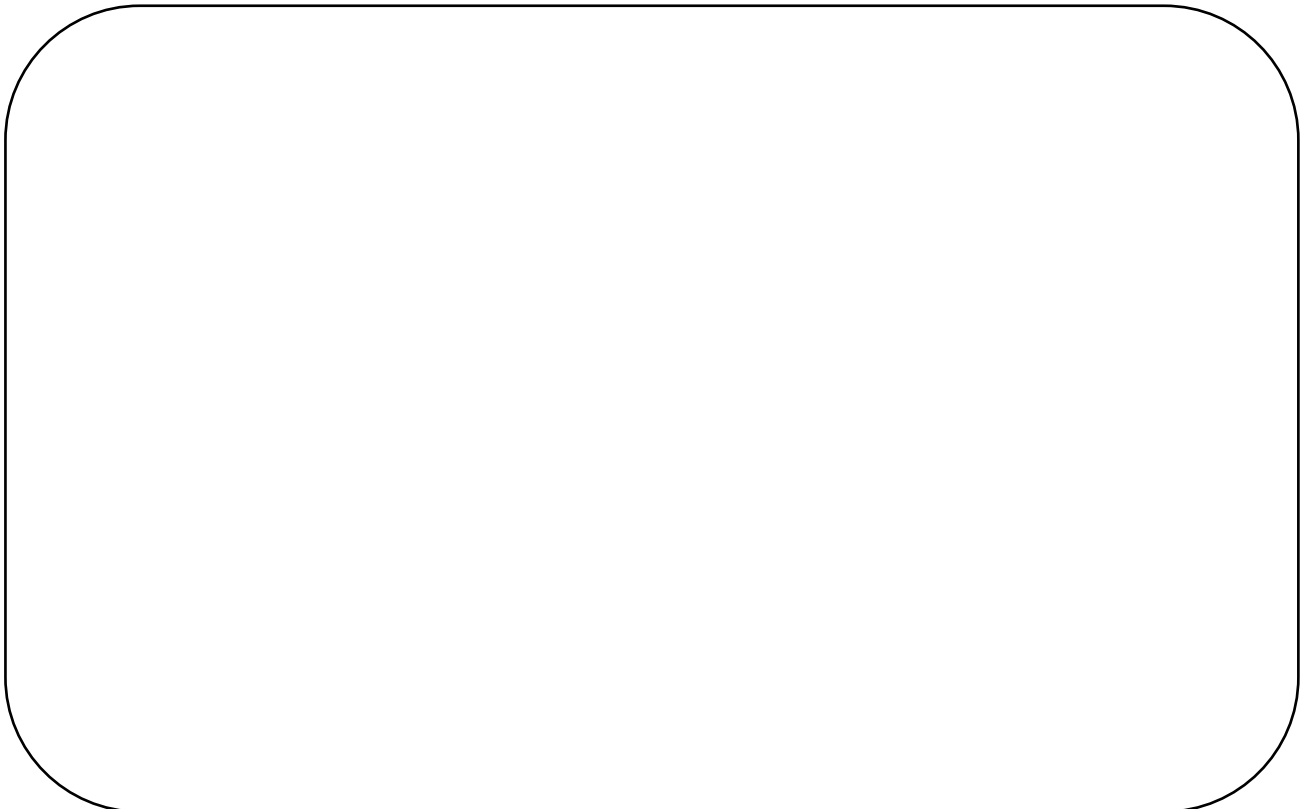
Pat tells Chris it is going to cost less than £850 to pay for the villa and the transfer.

Is Pat correct?

Show why you think this.

(4)

Use this box to show clearly how you get your answer.



Week 6 Lesson 2- Measurement

3) Pat and Chris have paid to take up to 40 kg of luggage on the flight.

Pat weighs the luggage on their bathroom scales.

The total weight of the luggage is 6 stone and 2 pounds.

Pat knows that

- 1 stone = 14 pounds
- 2.2 pounds = 1kg

Does the luggage weigh less than 40kg?

(3)

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



Week 6 Lesson 2- Measurement

- 4) The dancers use sticks in some of the dances.
Jane needs some ribbon to tie on the sticks.

She needs to buy enough ribbon for 20 sticks

Each stick has 8 pieces of ribbon.

Each piece of ribbon is 30 cm long.

The ribbon is sold in rolls.

Each roll has 25m of ribbon.

How many rolls of ribbon does Jane need to buy?

(3)

Use the box below to show clearly how you get your answer



Week 6 Lesson 2- Measurement

- 5) Tim is going to put a patio outside the hut.
The patio will be in the shape of a rectangle with length 7.2m and width 6m.

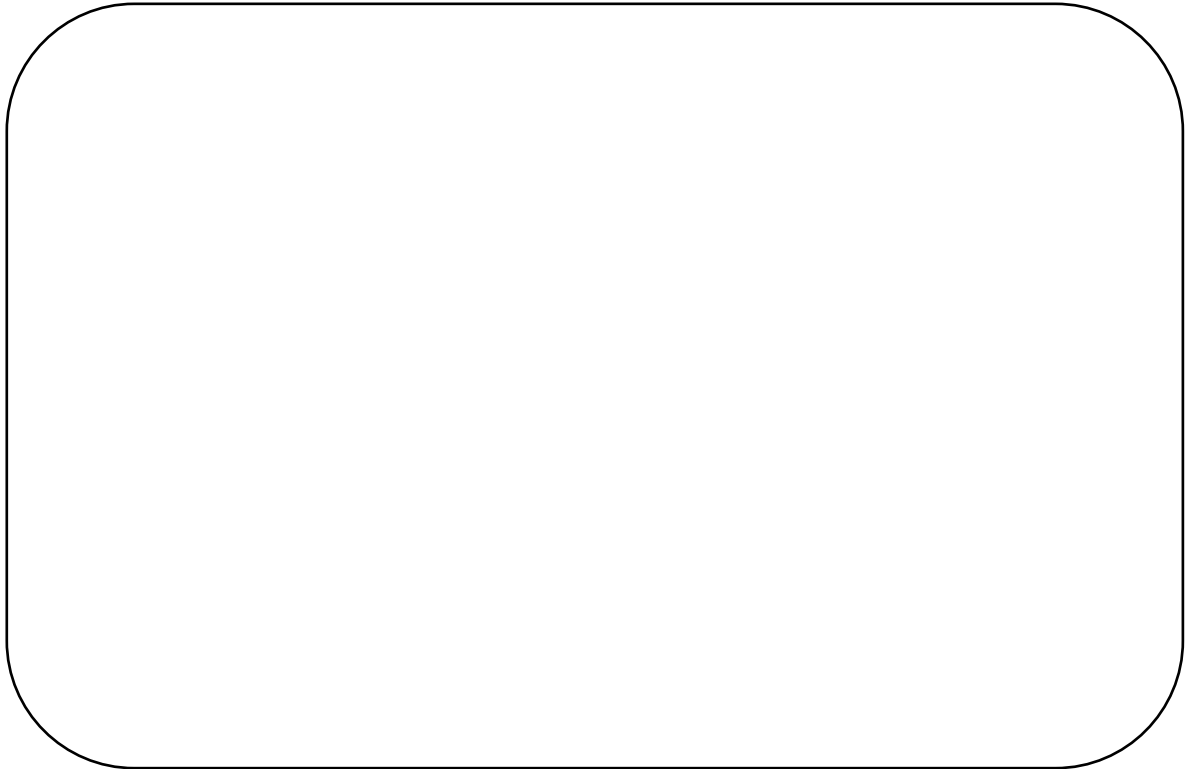
Tim is going to use paving stones to make patio.
Each paving stone is square with sides of 600 mm.

Tim has already got 110 paving stones.

Does Tim need to buy more paving stones?

(3)

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



Week 6 Lesson 2- Measurement

- 6) Freya wants to compare the price of a meal in the UK with the price of a similar meal in France.

In the UK the price of 20 meals is £110

In France, the price of 24 meals is 180 euros.

Freya knows that £1 = 1.22 euros.

Is the price of a meal lower in the UK or France?

Show why you think this.

(4)

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

