Q1.

The table shows the ratio of teachers to children needed for two activities.

	teachers : children
Climbing	1 : 4
Walking	1 : 9

(a)   There are 7 teachers to take children climbing.

What is the greatest number of children that can go climbing?

....

Answer ....

(1)

(b)   49 children want to go walking.

What is the smallest number of teachers needed?

....

Answer ....

(1)
(Total 2 marks)

Q2.

Laura buys a saddle in the UK for £850
Delivery is free.

Steve buys the same saddle from Holland for 990 Euros.
He pays 15 Euros for delivery.

£1 = 1.18 Euros

Including the delivery charge, whose saddle is **cheaper**?
You **must** show your working.

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Answer ....
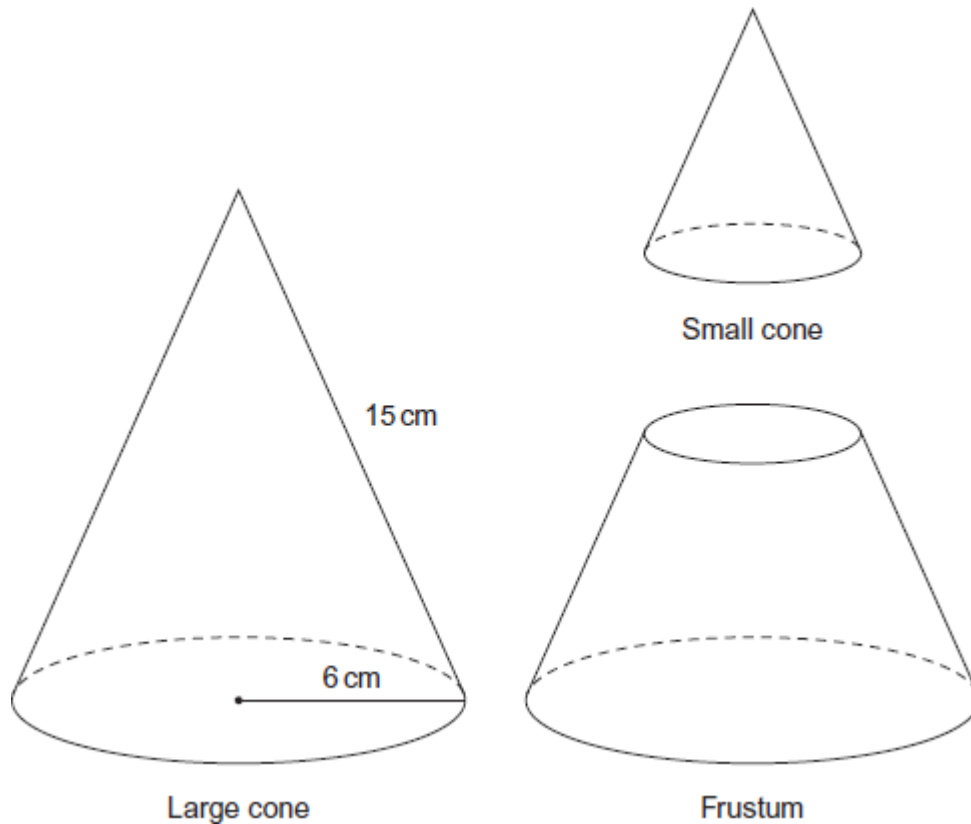
(Total 3 marks)

Q3. A frustum is made by cutting a small cone from the top of a large cone as shown.

Small cone

Large cone

Frustum

15 cm

6 cm

The slant height of the large cone is 15 cm.
The radius of the base of the large cone is 6 cm.

The height of the small cone is half the height of the large cone.

Work out the **curved** surface area of the frustum.

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Answer .... cm²

(Total 4 marks)

Q4.

Dave goes Go-Kart racing with his friends.

These tables show information about his races on both dry and wet tracks.

Dry track

Number of races	Number of wins
64	16

Wet track

Number of races	Number of wins
40	12

On which type of track is he more successful?
You **must** show your working.

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(Total 3 marks)

Q5.

Pancakes for 6 people
50 g flour 25 g butter 1 egg 150 ml milk

How much milk is needed to make pancakes for 15 people?

....

....

....

....

Answer .... ml

(Total 3 marks)

Q6. A recipe needs 300 grams of flour to make 4 cakes.

(a)   How much flour is needed to make 6 cakes?

....

....

....

....

Answer .... grams

(2)

(b)   1 kg = 1000 grams

How many cakes can be made from a 1.5 kg bag of flour?

....

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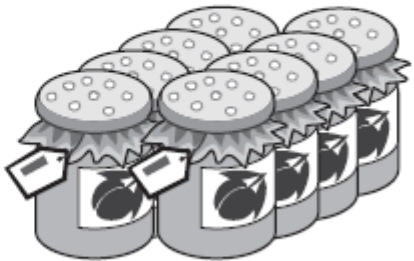
Answer ....

(3)
(Total 5 marks)

Q7.(a)

Plum jam
Recipe for 8 jars

Caster Sugar	1.8 kg
Plums	1.2 kg
Water	160 ml
Lemon Juice	100 ml

Jayne wants to make **4 jars** of jam.

How many **grams** of plums does she need?

Answer .... grams

(1)

(b)   Jayne has 860 grams of caster sugar.

How much **more** caster sugar will she need to make **4 jars** of jam?
State the units of your answer.

....

Answer ....

(2)
(Total 3 marks)

Q8. Here is a conversion graph.
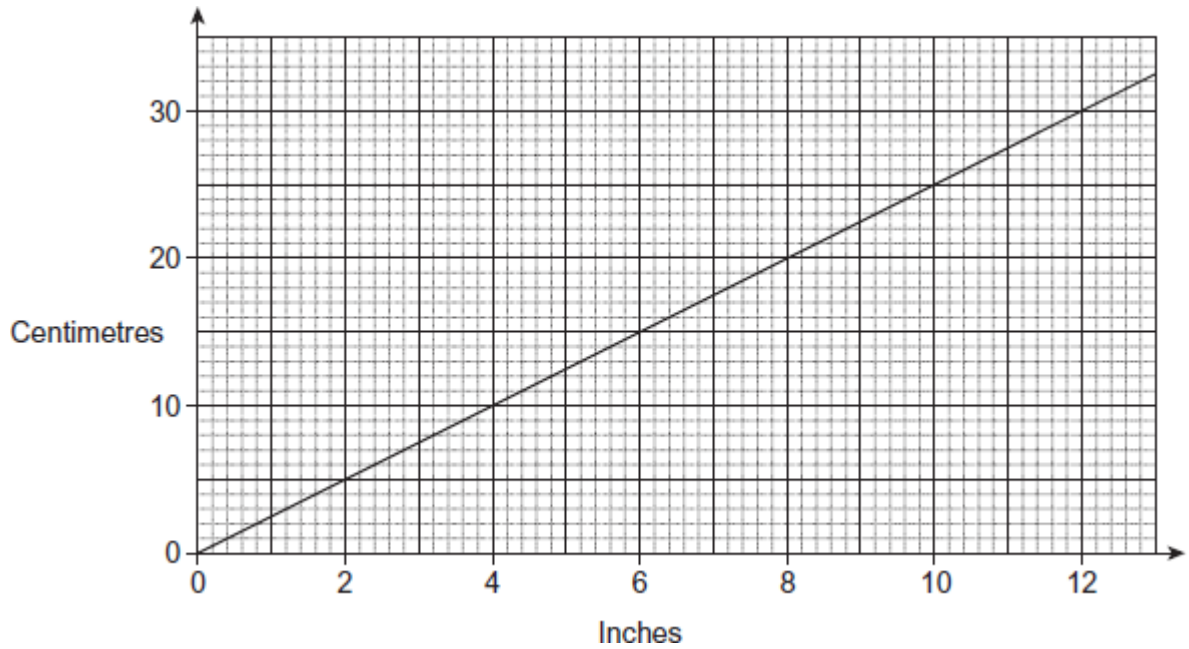
Shaz has 150 cm of material.
She needs 75 inches of material to make a skirt.

Does she have enough material?
You **must** show your working.

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....

(Total 3 marks)

Q9. Samples are taken from a production line.

The number of faulty items is shown.

	Sample A	Sample B	Sample C
Sample size	300	250	400
Number of faulty items	42	33	48

Which sample has the biggest **proportion** of faulty items?

You **must** show your working.

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....

Answer ....

(Total 3 marks)

Q10.(a)   A pack of 8 batteries costs £5.99

How much does each battery cost?

....

....

Answer .... pence

(2)

(b)   A pack of 6 batteries of the same type costs £3.99

Is this better value?

....

....

....

....

(2)
(Total 4 marks)

Q11.

Year 10 has 210 students.
112 are boys.

Year 11 has 240 students.
132 are boys.

Which year group has the greater proportion of boys?
You **must** show your working.

....

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....

....

(Total 4 marks)

Q12.

> **Ingredients for biscuits**
> 60 g of sugar
> 120 g of butter
> 180 g of flour

With these ingredients I can make
40 small biscuits
or
20 large biscuits.

Tony

Tony wants to make 20 small biscuits **and** 15 large biscuits.

Work out how much of each ingredient he needs.
You **must** show your working.

....

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Sugar .... g

Butter .... g

Flour .... g

(Total 4 marks)

Q13. Mel wants to make 20 pancakes.

She needs $\frac{1}{4}$ litre of milk to make 4 pancakes.

She has one litre of milk.

Does she have enough milk to make all the pancakes?
You **must** show your working.

....

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....

....

(Total 3 marks)

Q14. Smith and Jones both play for a local football team.

	Goals scored	Games played
Smith	6	27
Jones	8	32

Which player has the higher proportion of goals scored per game played?
You **must** show your working.

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Answer ....

(Total 3 marks)

Q15. Here are some of the ingredients for a pie.

Minced lamb	450 g
Potatoes	900 g
Carrots	75 g
Stock	300 ml

Oliver has only 300 g of minced lamb.

How much of the other ingredients should he use?

....

....

....

....

Answer Potatoes .... g

Carrots .... g

Stock .... ml

(Total 3 marks)

Q16. Here is a list of ingredients for bread and butter pudding.

> **Serves 2 people**
>
> 1 egg
>
> 3 slices of bread
>
> $\frac{1}{2}$ pint of milk
>
> 75 g raisins
>
> 5 g butter

Complete this list to serve four people.

> **Serves 4 people**
>
> .... eggs
>
> .... slices of bread
>
> .... pint of milk
>
> ....g raisins
>
> ....g butter

(Total 3 marks)

Q17. The diagram shows two bottles of the same drink.

1.5 litres

£1.99

50 cl

64p

Small   Large

You are given that   1 litre = 100 cl

(a)   Work out the cost per litre for the small bottle.

....

        Answer £ ....

(2)

(b)   Which bottle is better value for money?
        You **must** show your working.

....

....

....

        Answer ....

(3)
(Total 5 marks)