



Aberdare Community School  
Mathematics Department

WJEC GCSE

**Higher – Non Calculator**  
Shape

## **Metric and imperial units**

Name: .....

Set: .....

Date: .....

Teacher: .....

2. A recipe for making 10 fruit oat bars has the following ingredients.

<p><b>10 Fruit Oat Bars</b></p> <p>80 grams Butter        80 grams Brown Sugar        2 tablespoons Golden Syrup        130 grams Porridge Oats        140 grams Dried Fruit        2 tablespoons Sunflower Seeds</p>
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(a) Gillian is making fruit oat bars for a charity stall. Complete the following table to show the quantity of each ingredient needed to make 150 fruit oat bars.

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<p><b>150 Fruit Oat Bars</b></p> <p>..... grams Butter        ..... grams Brown Sugar        ..... tablespoons Golden Syrup        ..... grams Porridge Oats        ..... grams Dried Fruit        ..... tablespoons Sunflower Seeds</p>
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[3]

(b) When Linda makes 100 fruit oat bars, she buys a 2 kg bag of porridge oats. Find the weight of porridge oats left over after making the bars. Give your answer in grams.

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[3]

(c) A recipe book states that 1 ounce is equivalent to 25 grams. Using this information find whether 5 ounces of butter is sufficient to make 20 fruit oat bars. Show calculations to support your answer.

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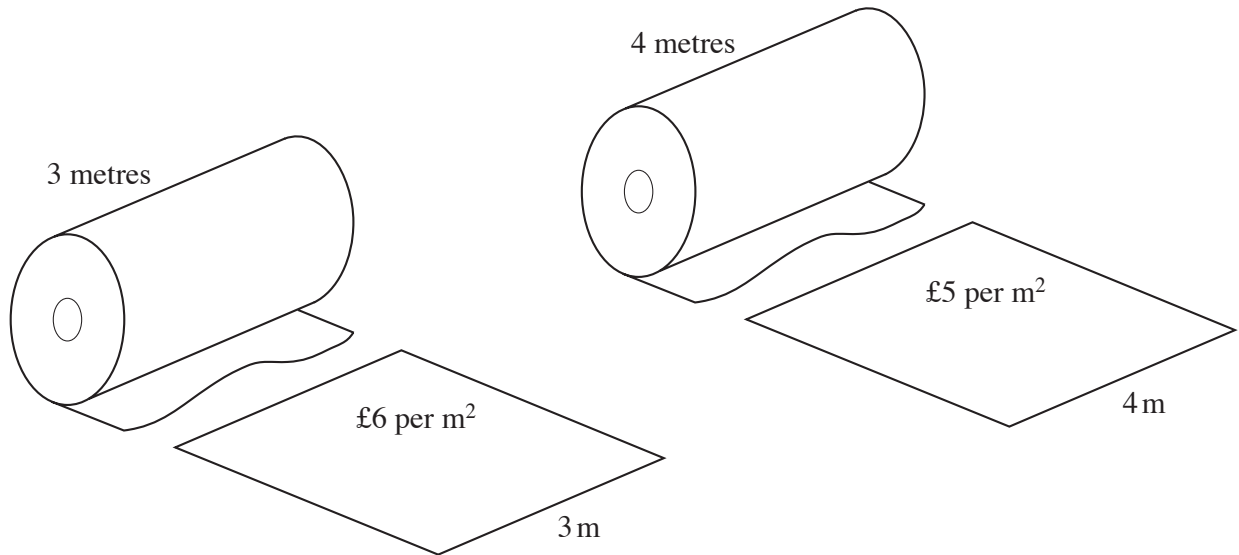
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[3]

7.

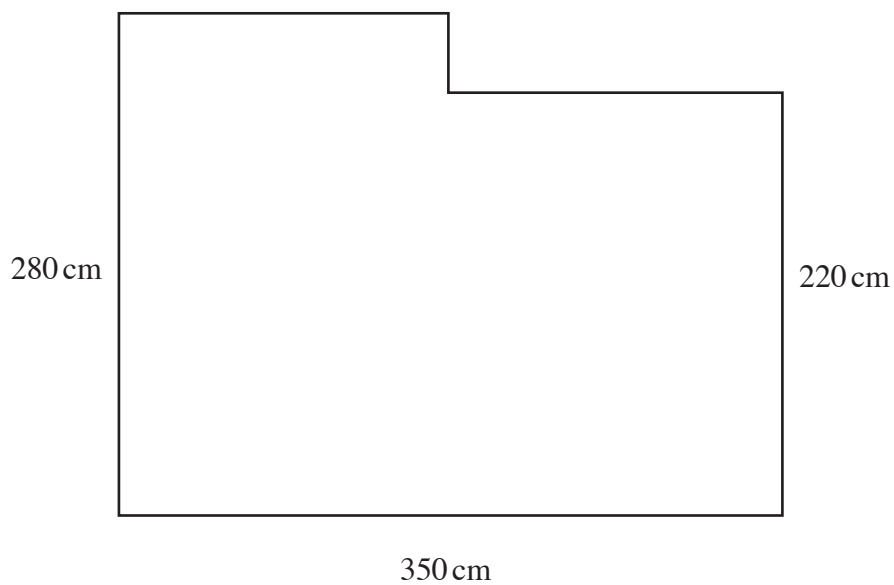


Floor covering for a bathroom is sold in rectangular strips cut from rolls having widths of 3 m or 4 m.

The length of the strip may have any value, but its width must be either 3 m or 4 m.

The amount charged is based on the area of the rectangular strip.

Mr Blaggs measures his bathroom floor and draws a rough sketch, as shown below, to take to the shop.





2.

<b>Mixed Berry Yogurt Shake</b>	
Serves <b>8</b> people	
Ingredients:	4 cups semi-skimmed milk 4 cups low fat natural yogurt 16 ounces mixed summer fruits 4 tablespoons of honey

The recipe for Mixed Berry Yogurt Shake appears in an old cookery book. Inside the cover of the book the reader is told that 1 cup = 250 ml, 4 ounces is approximately 115 g and 1 tablespoon is 15 ml.

(a) Complete the recipe below for serving 8 people using ml and g.

<b>Mixed Berry Yogurt Shake</b>	
Serves <b>8</b> people	
Ingredients:	..... ml semi-skimmed milk ..... ml low fat natural yogurt ..... g mixed summer fruits ..... ml of honey

[4]

(b) Jamie has large quantities of natural yogurt, mixed summer fruits and honey but only has 5.5 litres of semi-skimmed milk. Find the largest number of people for whom Jamie can make Mixed Berry Yogurt Shakes.

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[3]

1. (a) Given that 20kg is approximately 44 lb (pounds), complete the statement below.

1 kg = ..... lb (pounds)

[1]

(b) The label on a pack of cheese reads:

**10 litres of milk make 1 lb (pound) of cheese**

Calculate how many litres of milk are needed to make 15 kg of cheese.

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[3]

(c) The label on the pack of cheese also states:

Typical value per 100 g:	
Energy	1700 kJ 410 kcal
Protein	25.0 g
Carbohydrate	0.1 g
Fat	34.4 g

(i) Calculate the amount of protein in 1.5 kg of cheese.

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(ii) What percentage of the cheese is fat?

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[4]

4. (a) Complete the following conversion table.

<b>Conversion</b>	
<b>Miles</b>	<b>Kilometres</b>
15	.....
.....	120
100	160

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[3]

- (b) Kevin's car manual states that the fuel consumption for his car is 20 km per litre.  
Kevin's car gives distance travelled in miles.  
What is the fuel consumption of Kevin's car in miles per litre?

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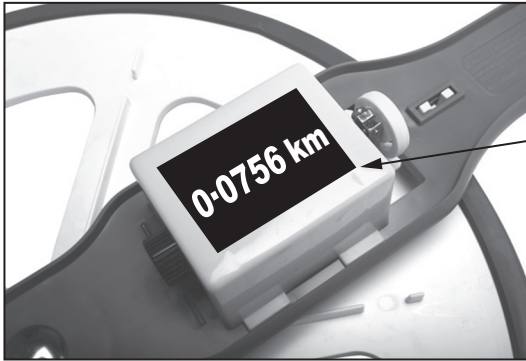
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[2]



1. Sioned's trundle wheel display reads 0.0756 km.



What is this measurement in centimetres?

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[2]



3.

**Pasta with cheese and asparagus sauce**

Serves 4 people

Ingredients:

4 ounces Butter

8 ounces Asparagus

12 ounces Pasta

1 Onion

2 tablespoons Stock

$\frac{2}{3}$  cup Cream

3 ounces Cheese

The recipe in Tamara's cookery book for pasta with cheese and asparagus sauce is shown above.

Information to convert units is also given, as follows:

- 1 cup is approximately 240 ml
- 4 ounces is approximately 115 g
- 1 tablespoon is 15 ml

(a) Complete the recipe for serving **8 people** using **ml** and **g**.

[4]

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**Pasta with cheese and asparagus sauce**

Serves **8** people

Ingredients:

..... g Butter

..... g Asparagus

..... g Pasta

..... Onions

..... ml Stock

..... ml Cream

..... g Cheese

(b) Tamara has a  $\frac{1}{2}$  litre carton of cream.  
 She has large quantities of all the other ingredients.  
 Calculate the largest number of portions of pasta with cheese and asparagus sauce that Tamara can make using as much of the cream as possible. [4]

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4. Sophie is going on holiday.

(b) Sophie's luggage weighs 22lb.



Approximately how much does her luggage weigh in kg?

[1]

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