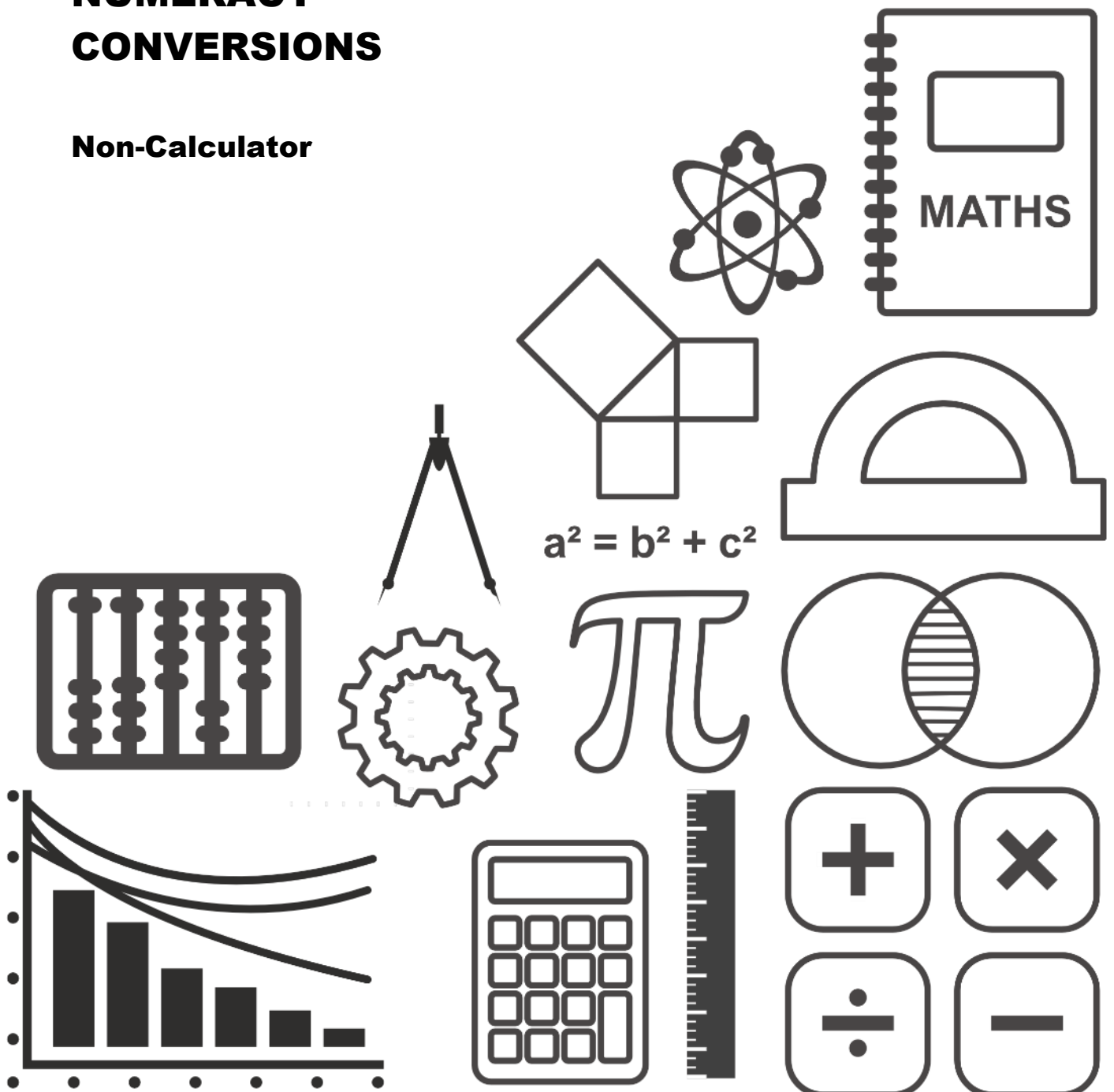


# MATHSDIY

## GCSE TOPIC BOOKLET NUMERACY CONVERSIONS

Non-Calculator



1.

Remember:  
1 inch  $\approx$  2.5 cm

The height of a fully-grown Jack Russell dog is between 25 cm and 30 cm.  
A fully-grown Jack Russell dog has a mass of between 6 kg and 8 kg.

Complete each of the following statements.

(i) 'The height of a fully-grown Jack Russell dog is between  
..... inches and ..... inches.' [3]

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(ii) 'A fully-grown Jack Russell dog has a mass of between  
..... pounds and ..... pounds.' [3]

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2. Every year, *Aber Young Farmers* club organises a sponsored walk.

This year, the length of the walk is 20 miles.  
Calculate the length of the walk in km.



[2]

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3. An old recipe is given below.

**Arrabiata pasta sauce**  
Serves 4 people

1 onion  
2 × 0.88 lb tins of tomatoes  
3 chillies

(i) How many chillies would be needed to make Arrabiata pasta sauce for 48 people? [2]

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(ii) How many **kilograms** of tinned tomatoes are needed to make Arrabiata pasta sauce to serve 20 people? [3]

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A pasta factory in Italy produces 5km of spaghetti per day.  
How many centimetres of spaghetti will this factory produce in 7 days?  
Give your answer in standard form. [3]

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4. *Tref-tiles* sells a wall tile measuring 10 cm by 20 cm.  
 How many of these tiles would be needed to cover a wall measuring 3 m by 4 m?  
 You can assume there are no gaps between the tiles.  
 You must show all your working. [3]

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Number of tiles is .....

5. Jade is planning a weekend break to celebrate her 21st birthday.

Jade has bought a new suitcase that can hold 65 litres.  
 What is 65 litres in  $\text{cm}^3$ ?  
 Circle your answer. [1]

$65 \text{ cm}^3$        $650 \text{ cm}^3$        $6\,500 \text{ cm}^3$        $65\,000 \text{ cm}^3$        $650\,000 \text{ cm}^3$

6. A helicopter pilot is planning a route from Milford Haven to Ruabon and then on to Swansea.

The plan for the flight is shown below.

Journey	Average speed	Time
Milford Haven to Ruabon	90 mph	1 hour 20 minutes
Ruabon to Swansea	80 mph	1 hour 15 minutes

On average, the helicopter uses 0.4 gallons of fuel per minute.

Remember: 1 gallon = 4.55 litres

Use this information to calculate how many litres of fuel the helicopter would be expected to use for the flight planned.  
 You must show all your working. [5]

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Fuel = ..... litres

7. Sam is making a large pot of cheese sauce for a party. Sam uses the conversions
- 1 ounce  $\approx$  28 grams,
  - 1 pint  $\approx$  568 millilitres.

He wants to write the following recipe ingredients in grams and millilitres.

Cheese sauce

Ingredients:

4 ounces of butter

$3\frac{1}{2}$  ounces of flour

3 pints of milk

9 ounces of cheese

Using Sam's conversions, complete the ingredient table below. [4]

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Cheese sauce

Ingredients:

..... grams of butter

..... grams of flour

..... millilitres of milk

..... grams of cheese

8. Pont y Ddraig (Dragon's Bridge) opened in Rhyl harbour in autumn 2013.



A newspaper at the time said, 'Pont y Ddraig provides the final link in 15 miles of traffic-free ... ling across Cl...vy and Denbighshire.'

Write 15 miles in kilometres. [2]

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The height of the mast on the bridge is 148 feet. Using the conversion 1 foot = 30 cm, calculate the height of the mast in **metres**. [3]

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