

26/06/20

WALT understand and use approximate equivalences between metric units and common imperial units.

WILF:

- Understand that the equivalence of metric and imperial units is approximate, not exact.
- Pair up units of measurement based on their use.
- Convert metric and imperial measures.
- + Use problem solving language to explain your thinking.



What are imperial units?

Watch this video:



Imperial units are old measurements, which were replaced in most cases with our metric measurements.

Some things are still measured in imperial units, though - like distance on roads (miles), height of people (feet and inches) and milk (pints).

twinkl

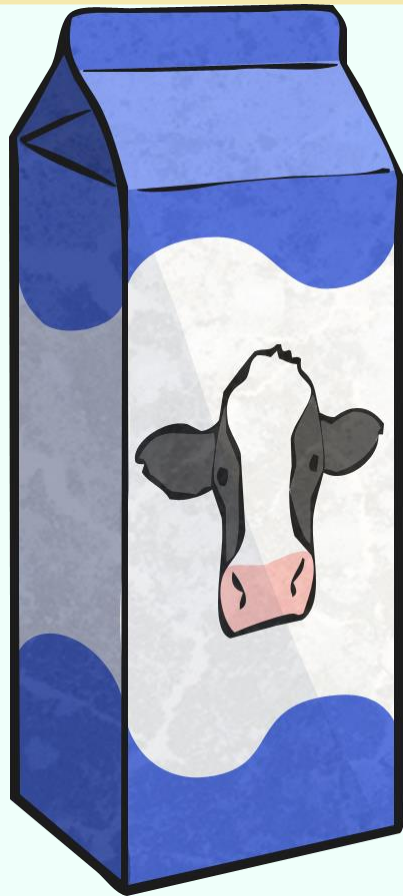
The amount of a metric unit in imperial units is always **approximate**, that means, it is roughly the same, but not exactly the same.

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Added Slide

1 pint \approx 0.57 litres

1 litre \approx 1.75 pints



Litres and Pints



This sign means approximately equals.

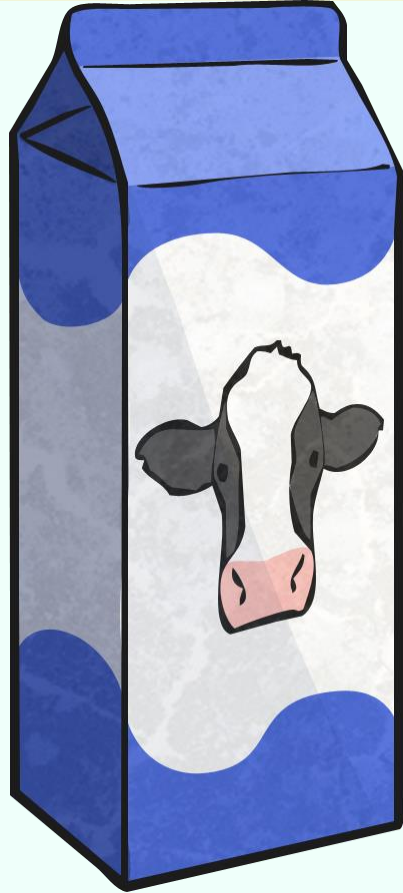
Milk is sold in pint, 2 pint, 4 pint or 6 pint cartons. A cook requires 2 litres of milk. Which would be the smallest carton of milk the cook could buy?

To solve this, you need to convert 2 litres into its approximate pint equivalent.

We know that 1 litre is about 1.75 pints of milk. **Have a go!**

1 pint \approx 0.57 litres

1 litre \approx 1.75 pints



Litres and Pints

Milk is sold in pint, 2 pint, 4 pint or 6 pint cartons. A cook requires 2 litres of milk. Which would be the smallest carton of milk the cook could buy?

I know that 1 litre is roughly 1.75 pints, so
 $1.75 \times 2 = 3.5$

3.5 rounded to the nearest whole is 4, so
the answer is 4 pints.

1 inch \approx 2.5cm

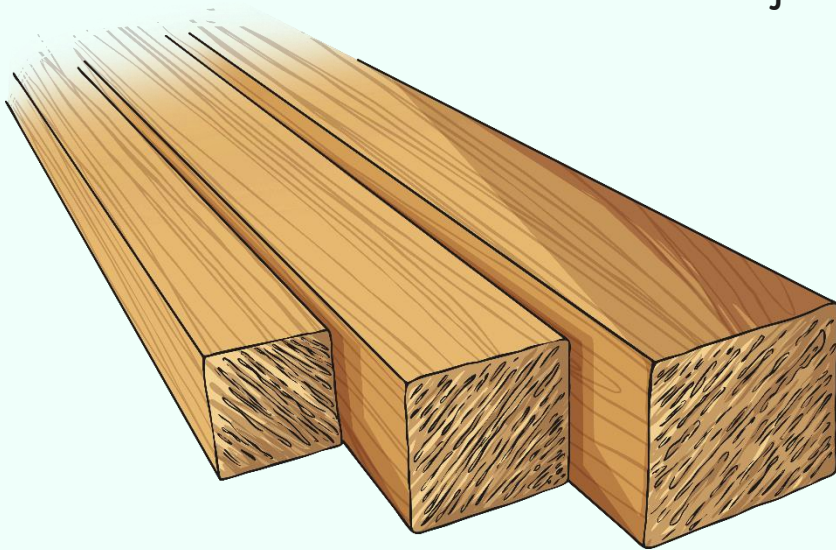
1 cm \approx 0.4 inches

Centimetres and Inches

Some pieces of wood are still sold in inches.

These are known as 2 x 2, because the square end is 2 inches x 2 inches.

What is the area of the end in square centimetres?



To answer this question - how much is an inch approximately in cm? How many inches are we converting?

1 inch \approx 2.5cm

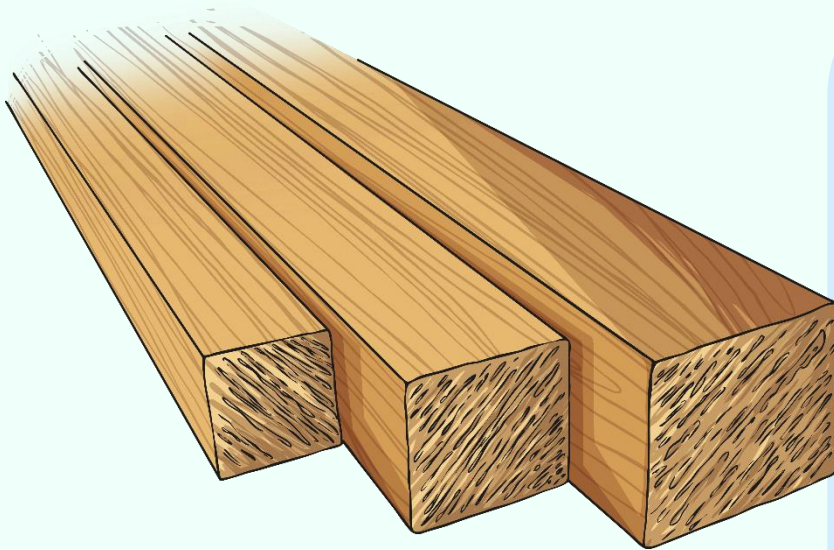
1 cm \approx 0.4 inches

Centimetres and Inches

Some pieces of wood are still sold in inches.

These are known as 2 x 2, because the square end is 2 inches x 2 inches.

What is the area of the end in square centimetres?



1 inch is approximately 2.5cm.

2 inches is 2.5×2 , which is 5.

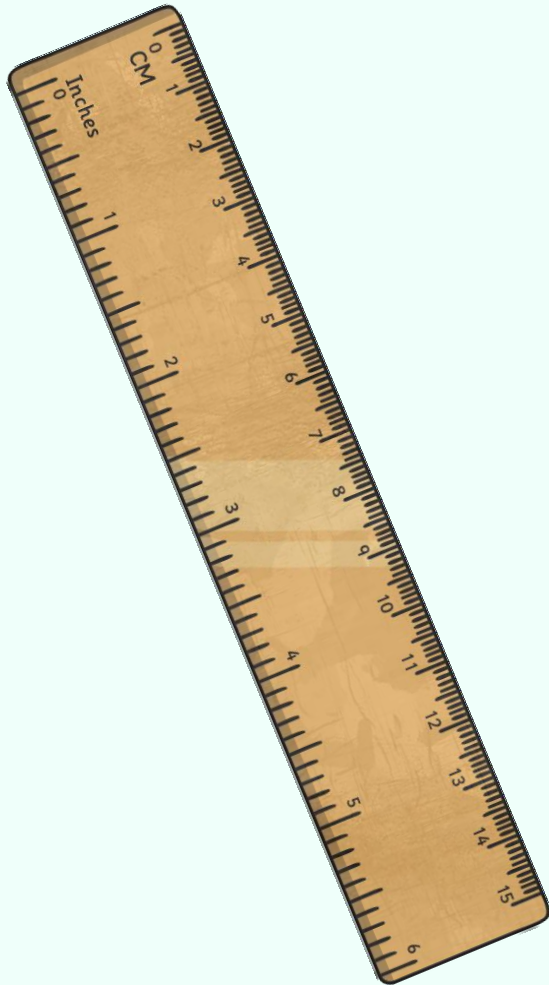
To work out the area, I need to multiply two sides together.

It is a square, so each side is 5cm.

$5 \times 5 = 25$

It's area, so it's 25cm^2

Centimetres and Feet



1 inch \approx 2.5cm

1 foot \approx 12 inches

Which unit is biggest?
Which is smallest?
How do you know?

Pound and Kilogram

A new born baby weighed 8.5lb. How much was this in kg to the nearest whole number?



$$1 \text{ lb} \approx 0.45 \text{ kg}$$

$$1 \text{ kg} \approx 2.2 \text{ lb}$$

To answer a question like this, look at the approximate equivalent measurement. Pounds are lb. $1\text{lb} = 0.45\text{kg}$, so 0.5lb is 0.22kg

$$8 \times 0.45 = 3.6 \quad +0.22 = 3.82$$

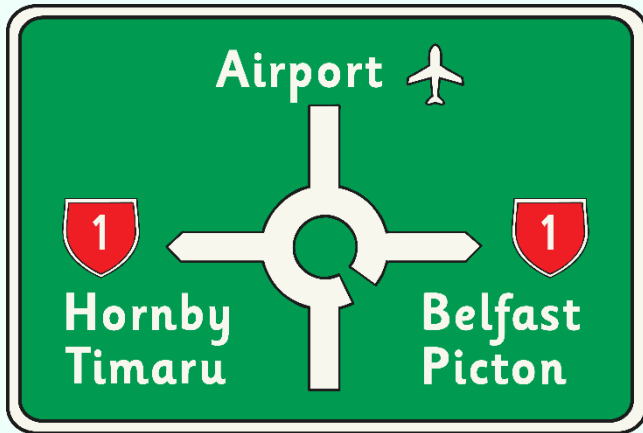
Rounded to the nearest whole number, 3.82 is 4.

The answer is therefore approximately 4kg.

Kilometres and Miles

1 mile \approx 1.5km

In the UK distances are measured in miles, but in Europe they are measured in kilometres. Complete this table:



London to Sheffield is 165 miles.

How far is that in miles?

Have a go at today's activity.

Please make sure you read the question carefully and use the given unit conversions to help you.

Use the approximate equals sign in your work.

