

Imperial to Metric Measures.

Below is a table to help us to convert from one unit of measure to another.

(Note: the wiggly equal sign \approx just means 'approximately equal to'.)

Length

1 inch \approx 2.5 cm

1 foot \approx 30cm

1 mile \approx 1.6km

5 miles \approx 8km



Capacity

8 pints = 1 gallon

1 gallon \approx 4.5l

1 pint \approx 570ml

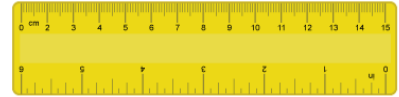
Mass

16 ounces = 1 pound

1 ounce \approx 25g

1 pound \approx 450g

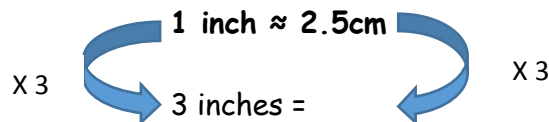
2.2 pounds \approx 1 kg



If we know 1 inch \approx 2.5cm

If we measure an object to be 3 inches long, we may need to know what the measure is in centimetres so using the above fact, we can work this conversion out.

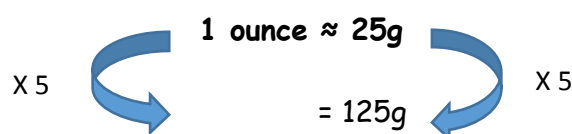
To find 3 inches, we multiply the 1 inch by 3, so we do the same to the 2.5cm.



So, we can say 3 inches = 7.5cm

If we know 1 ounce \approx 25g

If we weigh an ingredient in grams, we may need to know what the measure is in ounces so we can follow a recipe. Using the above fact, we can work this conversion out.



So, we can say 5 ounces = 125g

To find how many ounces is the same as 125 grams, we have to work out what we multiply 25 by to get to 125 and then we can do the same to the 1 ounce.



I go to the shop and buy 16 pints of milk.

1. How many gallons of milk have I bought?

2 gallons

2. Convert that answer into litres

9 litres

Solution: I have completed the first one to show you how to work it out.

For question 1 - we need to know that:

$$\begin{array}{ccc} & \text{8 pints} \approx \text{1 gallon} & \\ \times 2 & \text{16 pints} = & \times 2 \end{array}$$

For question 2 - we need to know that:

$$\text{1 gallon} \approx \text{4.5 litres}$$

$$\text{2 gallons} = \text{9 litres}$$



3. When baking a cake I need 100grams of sugar. Convert this to ounces. **4 ounces**

4. I also need 300grams of cocoa powder.

Convert this to ounces. **12 ounces**

Solution:

For question 3 and 4 - we need to know that:

$$\text{1 ounce} \approx \text{25g}$$

$$\text{4 ounces} = \text{100g}$$

$$\text{12 ounces} = \text{300g}$$



5. A baby weighs 4kg when it is born.

Convert this to pounds. **8.8 pounds**

Solution:

For question 5 - we need to know that:

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

$$\text{8.8 pounds} = \text{4 kg}$$



Subway measures their sandwiches in inches and feet.

6. If you have a 6 inch sandwich, how many cm long is your sandwich? **15 cm**
7. If you have a foot long sandwich, how many cm long is it? **30cm**

Solution:

For question 6 - we need to know that:

$$1 \text{ inch} \approx 2.5 \text{ cm}$$

$$6 \text{ inches} = 15 \text{ cm}$$

For question 7 - we need to know that:

$$1 \text{ foot} \approx 30 \text{ cm}$$

$$1 \text{ foot} = 30 \text{ cm}$$



Domino's measure their pizzas in inches (" is the unit for inches) Work out the size of each pizza in cm.

8. Small - 9" **22.5 cm**
9. Medium - 11" **27.5 cm**
10. Large - 13" **32.5 cm**

Solution:

For question 8-10 - we need to know that:

$$1 \text{ inch} \approx 2.5 \text{ cm}$$

$$9 \text{ inches} = 22.5 \text{ cm}$$

$$11 \text{ inches} = 27.5 \text{ cm}$$

$$13 \text{ inches} = 32.5 \text{ cm}$$



The longest snake ever is 7.2m.

11. Convert 7.2m into cm **720 cm**
12. Convert your answer to feet **24 feet**

Solution:

For question 11 - we need to know that:

$$1 \text{ metre} = 100 \text{ cm}$$

$$7.2 \text{ m} = 720 \text{ cm}$$

For question 12 - we need to know that:

$$1 \text{ foot} \approx 30 \text{ cm}$$

$$24 \text{ feet} = 720 \text{ cm} \quad \text{↶} \times 24$$