

## CONVERSIONS & TIME CALCULATIONS

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### Lesson Description

In this lesson we:

- Revise how to convert measurement
- Revise calculations with time



### Summary

#### Metric System Conversions

This table shows you how different units in the metric system relate to one another.

Unit	Weight	Length	Capacity
Thousands	kilogram (kg) 1 000 g = 1 kg	kilometre (km) 1 000 m = 1 km	kilolitre (kl) 1 000 l = 1 kl
Base unit	gram (g)	metre (m)	litre (l)
Hundredths		centimetre (cm) 100 cm = 1 m	
Thousandths	milligram (mg) 1 000 mg = 1 g	millimetre (mm) 1 000 mm = 1 m	millilitre (ml) 1 000 ml = 1 l

#### Time

1 year = 12 months = 52 weeks = 365 days  
 1 week = 7 days  
 1 day = 24 hours  
 1 hour = 60 minutes  
 1 minute = 60 seconds

**Test Yourself****Question 1**

Convert 35cm to m

- A. 3 500m
- B. 35m
- C. 0,35m
- D. 3,5m

**Question 2**

Convert 750ml to litres

- A. 750 000 l
- B. 0,750 l
- C. 7,500 l
- D. 750 l

Use the information below to answer questions 3 and 4:

1 cup = 250ml  
1 tablespoon (tbsp) = 15ml  
1 teaspoon (tsp) = 5ml

**Question 3**Convert  $2\frac{3}{4}$  cups to ml

- A. 750 ml
- B. 515 ml
- C. 687,5 ml
- D. 187,5 ml

**Question 4**

Convert 835 ml into measuring tools:

- A. 3,5 cups
- B. 3 cups, 5,5 tablespoons
- C. 3 cups, 5 tablespoons, 1 teaspoon
- D. 3 cups, 5 tablespoons, 2 teaspoons

**Question 5**

Given that 5ml = 4g of flour, determine how much litres of flour are contained in a 1 kilogram bag.

- A. 1 000 litres
- B. 5 000 litres
- C. 1,25 litres
- D. 1 250 litres

**Question 6**

How many cups (1 cup = 250ml) of sugar are there in a 2,5kg bag of sugar? (5ml of sugar = 4g)

- A. 625 cups
- B. 3 125 cups
- C. 12,5 cups
- D. 125 cups

**Question 7**

Given that 1 inch = 25,4mm; convert 11 inches into cm.

- A. 279,4 cm
- B. 27,94cm
- C. 2,794 cm
- D. 0,23 cm

**Question 8**

Convert  $30^{\circ}F$  into degree Celsius. ( $^{\circ}C = (^{\circ}F - 32) \div 1.8$ )

- A. 1,11  $^{\circ}C$
- B. -1,11  $^{\circ}C$
- C. 12,22  $^{\circ}C$
- D. -12,22  $^{\circ}C$

**Question 9**

How many minutes in a day and 2 hours?

- A. 1,2 minutes
- B. 6 120 minutes
- C. 1 560 minutes
- D. 1 440 minutes

**Question 10**

How long is a movie if it starts at 2.25pm and ends at 16:41?

- A. 14 hours 16 minutes
- B. 2 hours 6 minutes
- C. 2 hours 16 minutes
- D. 14 hours 6 minutes



## Improve your Skills

### Question 1

- 1.1 Convert each of the following to metres:
- 1.1.1 18cm (2)
- 1.1.2 3,465km (2)
- 1.2 Convert each of the following to grams:
- 1.2.1 85kg (2)
- 1.2.2 600mg (2)
- 1.3 Is 64,3 miles further than 103,5 kilometres. With the knowledge that 1 mile = 1,61km, answer the question by showing your working. (3)
- 1.4 Who is heavier?  
George who weighs 368 pounds and 5,3 ounces or Bruce who weighs 166kg?  
Remember: 1 pound = 450g  
1 ounce = 28,125g (5)
- 1.5 Which is greater?  
Container A holds 1,3 gallons;  
Container B holds 5900ml or  
Container C which is a rectangular prism with sides 15cm x 102mm x 0,05m?

You may need to use the following:

$$1 \text{ gallon} = 4,55\text{l}$$

$$1 \text{ litre} = 1\,000\text{cm}^3$$

(9)

[25]

### Question 2

A certain pizza chain sells two million pizzas a month. The Ingredients used for these two million pizzas are as follows:

INGREDIENT	AMOUNT USED
Flour	1 000 000kg
Olive Oil	90 000 litres
Water	680 000 litres
Mozzarella	200 000kg
Tomato Paste	100 000 litres

- 2.1 Write the numerical value of two million. (1)
- 2.2 How many grams of flour are used to make the two million pizzas? (2)
- 2.3 2.3.1 How many litres of Tomato Paste is used for one pizza? (2)
- 2.3.2 Convert your answer to millilitres (2)
- 2.4 If Mozzarella cheese is sold at R132,50 per kilogram, determine how much the cheese for one pizza will cost. (4)

**Question 3**

When baking one batch of “Cheese Scones”, the following receipt can be followed:

227g of cake flour

1 cup grated cheese

$\frac{1}{2}$  cup butter

4 teaspoons baking powder

2 eggs

$\frac{1}{2}$  cup milk

Determine the total cost of the ingredients that are needed to bake a batch of scones, by completing the table. (11)

Ingredient	Cost	Hint	Cost for one batch
Flour	1kg of flour costs R4,85	1000g = 1kg	
Cheese	2 cups of grated cheese costs R8,60	No hint	
Butter	500g block of butter costs R8,60	1 cup butter = 227g	
Baking Powder	150g tin of baking powder costs R7,15	1 teaspoon = 5g	
eggs	1 dozen eggs costs R15	1 dozen = 12	
milk	1 gallon of milk costs R32,85	1 gallon = 4,5 litres 1 litre = 1000ml 1 cup = 250ml	
<b>Total Cost</b>			

