

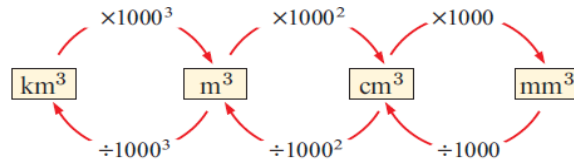
NAME: _____

DATE: _____

Review of Measurements

Complete the following conversions in your notebook.

VOLUME CONVERSIONS



Remember, it is easier to convert the units of length *before* the volume is calculated.



Example 1	Self Tutor
Convert:	
a 23 cm ³ to mm ³	b 24 000 cm ³ to m ³
a 23 cm ³ = (23 × 10 ³) mm ³ = 23 000 mm ³	b 24 000 cm ³ = (24 000 ÷ 100 ³) m ³ = (24 000 ÷ 1 000 000) m ³ = 0.024 m ³

1.

Convert:

- | | | |
|--------------------------------|------------------------------|-------------------------------|
| a 68 cl into ml | b 3.76 litres into cl | c 375 ml into cl |
| d 47 320 litres into kl | e 3.5 kl into litres | f 0.423 litres into ml |
| g 0.054 kl into litres | h 58 340 cl into kl | |

2.

Convert:

- | | | |
|--|--|--|
| a 2400 mm ³ to cm ³ | b 6.8 m ³ to cm ³ | c 8.3 mm ³ to cm ³ |
| d 7 480 000 cm ³ to m ³ | e 348 cm ³ to mm ³ | f 2 × 10 ⁹ m ³ to km ³ |
| g 7.2 km ³ to m ³ | h 38 100 mm ³ to cm ³ | i 3500 cm ³ to mm ³ |

3.

Convert:

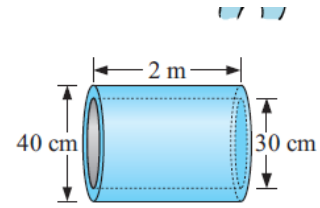
- | | | |
|-------------------------|------------------------|---------------------------|
| a 3480 mL to L | b 4.85 ML to kL | c 72.5 L to kL |
| d 8600 kL to ML | e 7.8 kL to L | f 15.3 L to mL |
| g 545 mL to L | h 48 L to kL | i 372 100 kL to ML |
| j 65 000 mL to L | k 0.82 kL to L | l 0.2 kL to mL |

CHALLENGE QUESTIONS

1.

Concrete pipes have the dimensions shown:

- Find the area of one end of the pipe.
- Hence, find the volume of one pipe.
- If concrete costs \$135 per cubic metre, find the cost of the concrete needed to make one pipe.
- If the concrete weighs 2.43 grams per cm^3 , find the weight of one pipe in kilograms.



2.

How long would it take to fill a petrol tank 24 cm by 40 cm by 60 cm if it can be filled at a rate of 16 litres per minute?

3.

A cylindrical water tank of height 4 m is used to fill containers with dimensions 20 cm \times 30 cm \times 50 cm. If the tank can fill exactly 200 of these containers, find its base radius.

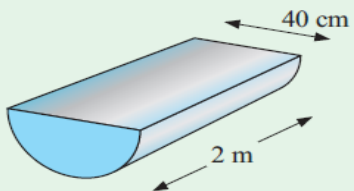
4.

An evaporative air conditioner runs on water. It needs 12 litres to run effectively. How many 80 cl jugs of water are needed to run the air conditioner?

5.

In one city the average driver uses 30 litres of petrol per week. If there are 700 000 drivers in the city, calculate the total petrol consumption of the city's drivers in a 52 week year. Give your answer in kl.

6.



A horse's drinking trough has the dimensions shown. How long will it take to fill the trough if water flows into it at 12 litres per minute?