

Foundation GCSE: Converting Metric Units — Length, Mass and Volume

Name: _____

Class: _____

Instructions: Answer all questions. Questions are ordered from easiest (1) to hardest (20). Working out should be shown where appropriate.

1. Convert 45 cm into millimeters.
2. A rope is 3.5 m long. What is its length in centimeters?
3. Add 400 g to 2.5 kg. Give your answer in grams.
4. Convert 450 mg into grams.
5. A container holds 3.2 litres of water. How many milliliters is this?
6. A piece of ribbon measures 75 mm in length. Express this in centimeters.
7. Find the difference between 1.2 km and 800 m. Give your answer in meters.
8. Convert 45000 g into kilograms.
9. A jug contains 750 ml of juice. How many liters of juice are in the jug?
10. A truck carries 2.4 tonnes of gravel. What is this mass in kilograms?
11. A tank has 4.5 litres of fuel. If 1200 ml is used, how many liters are left?
12. Convert 0.05 kg into milligrams.
13. A room is 340 cm wide. Write this measurement in meters.
14. A metal rod is 1.75 m long. What is its length in millimeters?
15. A package weighs 850000 mg. Convert this weight into kilograms.
16. Five bottles each contain 25 ml of medicine. What is the total volume in liters?
17. A book is 12.5 cm thick. Convert this thickness into millimeters.
18. A shipment contains 4.2 tonnes of sand. Express this total mass in grams.
19. A recipe requires 350 ml of milk per batch. How many liters are needed for 4 batches?
20. A garden path is 0.0034 km long. A section of 120 cm is paved. What length of the path remains unpaved, in centimeters?

Answers & Worked Solutions

1. $450 \text{ mm} : 45 \times 10 = 450$.
2. $350 \text{ cm} : 3.5 \times 100 = 350$.
3. $2900 \text{ g} : 2.5 \text{ kg} = 2500 \text{ g}$, then $2500 + 400 = 2900$.
4. $0.45 \text{ g} : 450 \div 1000 = 0.45$.
5. $3200 \text{ ml} : 3.2 \times 1000 = 3200$.
6. $7.5 \text{ cm} : 75 \div 10 = 7.5$.
7. $400 \text{ m} : 1.2 \text{ km} = 1200 \text{ m}$, then $1200 - 800 = 400$.
8. $45 \text{ kg} : 45000 \div 1000 = 45$.
9. $0.75 \text{ litres} : 750 \div 1000 = 0.75$.
10. $2400 \text{ kg} : 2.4 \times 1000 = 2400$.
11. $3.3 \text{ litres} : 1200 \text{ ml} = 1.2 \text{ litres}$, then $4.5 - 1.2 = 3.3$.
12. $50000 \text{ mg} : 0.05 \times 1000000 = 50000$.
13. $3.4 \text{ m} : 340 \div 100 = 3.4$.
14. $1750 \text{ mm} : 1.75 \times 1000 = 1750$.
15. $0.85 \text{ kg} : 850000 \div 1000000 = 0.85$.
16. $0.125 \text{ litres} : 5 \times 25 = 125 \text{ ml} = 0.125 \text{ litres}$.
17. $125 \text{ mm} : 12.5 \times 10 = 125$.
18. $4200000 \text{ g} : 4.2 \times 1000000 = 4200000$.
19. $1.4 \text{ litres} : 350 \times 4 = 1400 \text{ ml} = 1.4 \text{ litres}$.
20. $220 \text{ cm} : 0.0034 \text{ km} = 340 \text{ cm}$, then $340 - 120 = 220$.