

Tuesday 25 August 2026

1. Fill in the blanks with the correct units or values.

- (a) 1 kilogramme = _____ grammes.
(b) The instrument used to measure mass is a _____.
(c) The mass of an empty container is called _____ mass.
(d) The total mass of goods plus packaging is called _____ mass.

2. Write **TRUE** or **FALSE** for each statement.

- (a) 1 kg is heavier than 1 000 g. _____
(b) Net mass is the mass of goods only. _____
(c) To convert kg to g, you divide by 1 000. _____
(d) A full 50 kg bag of cement has gross mass of 50 kg if the empty bag weighs 0.5 kg.

3. Explain the difference between **gross mass** and **net mass** in your own words.

4. A shopkeeper in Mutare has a tin of cooking oil. The label says **Net mass: 750 g**. The empty tin has a mass of **250 g**.

- (a) What is the gross mass of the tin of cooking oil?

Answer: _____ g

- (b) Show your working below.

5. Convert the following masses:

- (a) 6 kg = _____ g
(b) 3 500 g = _____ kg
(c) 2.75 kg = _____ g
(d) 900 g = _____ kg

6. A farmer in Chinhoyi has three bags of maize. The masses are **48 kg**, **52 kg**, and **49.5 kg**.

(a) Arrange these masses from lightest to heaviest.

Answer: _____, _____, _____

(b) Use the symbols $<$ or $>$ to compare:

48 kg _____ 52 kg

49.5 kg _____ 49 kg

7. A truck delivers 20 bags of rice to a grocery store. Each bag has a net mass of **25 kg**. The empty bags weigh a total of **2 kg** (combined tare for all bags).

(a) What is the total net mass of all the rice?

Answer: _____ kg

(b) What is the total gross mass of all the bags and rice?

Answer: _____ kg

(c) If the truck itself (without any load) weighs 1 200 kg, what is the total mass of the loaded truck?

Answer: _____ kg

8. A supermarket sells a 5 kg packet of sugar. The packet has a tare mass of 50 g.

(a) What is the net mass of the sugar in grammes?

Answer: _____ g

(b) The sugar is repacked into smaller packets of 500 g each. How many full 500 g packets can be made from the 5 kg sugar?

Answer: _____ packets

(c) Show your working for part (b).

9. Two shops in Bulawayo sell the same brand of 10 kg bag of mealie-meal.

- Shop A claims the gross mass is 10.2 kg and the empty bag weighs 0.2 kg.
- Shop B claims the gross mass is 10.5 kg and the empty bag weighs 0.4 kg.

(a) Calculate the net mass for each shop.

Shop A net mass: _____ kg

Shop B net mass: _____ kg

(b) Which shop gives you more mealie-meal? Justify your answer.

10. Design a simple problem about mass that involves **gross, net, and tare mass** for a shop selling bags of rice in Harare. Write the problem and then solve it.

Your problem:

Solution:
