Multiplication and division in Measures of Mass

Understanding Notes

- Mass tells us how heavy something is..
- The standard units of mass are gram (g) and kilogram (kg).
- 1 kilogram = 1000 grams
- Multiplication is used to find total mass of many same items.
- Division is used to split mass into equal parts or find mass of one part.
- Convert all measurements to same unit before solving.
- Final answer should be written in kg and g form.

Example: (Easy – Multiplication in grams)

One chocolate weighs 150 g. What is the weight of 4 such chocolates?

✓ 150 × 4 = 600 g

Answer = 600 g

Example: (Easy – Division in kilograms)

A bag of wheat weighs 12 kg. It is divided into 4 equal parts

✓ 12 ÷ 4 = 3

Each part weighs 3 kg

Example: (Moderate – Multiplication with kg and g)

One packet of sugar weighs 2 kg 300 g. Find the weight of 3 such packets

✓ Kilograms = 2 × 3 = 6 kg

✓ Grams = 300 × 3 = 900 g

✓ Total = 6 kg 900 g

Answer = 6 kg 900 g

Example: (Moderate – Division in grams with conversion)

A sack of flour weighs 3000 g. It is packed into 5 equal bags

✓ 3000 ÷ 5 = 600 g

Each bag weighs 600 g

Example: (Moderate – Division with mixed units)

A box weighs 5 kg 400 g. It is divided into 4 equal parts

✓ Convert to grams = 5000 g + 400 g = 5400 g

✓ 5400 ÷ 4 = 1350 g

✓ Convert back = 1000 + 350 = 1 kg 350 g

Each part = 1 kg 350 g

Summary Points

- Use multiplication when same item is repeated.
- Use division to divide total weight into equal parts.
- 1 kg = 1000 g
- Convert all units into same before solving.
- Final answer should be written in kg and g form.