Unit 11 · Weight

HARDER PRACTICE QUESTIONS

Full marks 32

Write your answers on separate paper. Show your working, and write the unit with every answer. 1 kg = 1000 g, 1 quintal = 100 kg, 1 tonne = 1000 kg. The trucks, prices and people on this sheet are made up for the problems, except where the sheet says so.

1 A full truck [4]

A truck may carry at most 5 tonnes. It already has 23 quintals 40 kg of cement on it. How many 25 kg sacks of rice can still be put on it?

2 On the balance [4]

On a hand balance, 3 apples of the same weight and a 100 g weight in one pan balance a 500 g and a 200 g weight in the other.

i. What does one apple weigh?
ii. A small pumpkin balances 2 such apples and a 1 kg weight. What does the pumpkin weigh?
iii. How many apples would balance the pumpkin on their own?

3 Work backwards [3]

A carton holds 24 bottles of juice of the same weight. The full carton weighs 10 kg 200 g. The empty carton weighs 600 g.

i. What does one bottle weigh?
ii. 6 bottles are taken out. What does the carton weigh now?

4 Sensible weights [3]

For each thing, choose the weight that makes sense. Then write the four weights in grams, and put them in order, lightest first.

i. a hen's egg: 60 g or 60 kg
ii. a Grade 5 student: 3 quintals or 30 kg
iii. a sack of rice: 25 kg or 25 g
iv. a loaded truck: 50 kg or 50 quintals

5 Selling paddy [4]

In May 2026 the government set the lowest price for coarse paddy at Rs. 3,660 a quintal. Gyanu, a farmer in Dang, sells 4 quintals 75 kg of coarse paddy at this price.

i. How much does she get for the 4 quintals?
ii. What fraction of a quintal is 75 kg?
iii. How much does she get for the 75 kg?
iv. How much does she get in all?

6 Sending a parcel [4]

A courier charges Rs. 120 for a parcel of up to 500 g. For each 500 g more, or part of 500 g, it charges Rs. 60 more.

i. What does it cost to send a parcel of 2 kg 150 g?
ii. Suhana has two parcels of 1 kg 50 g each. Is it cheaper to send them on their own, or packed together as one parcel of 2 kg 100 g? By how much?

7 Sharing a load [3]

Three porters share a load of 1 quintal 2 kg. Karma carries twice as much as each of the other two, who carry equal amounts. How much does each one carry?
Hint: draw each of the other two loads as one box, and Karma's load as two boxes of the same size.

8 Rice for lunch [3]

A school gives each of its 125 students 150 g of rice for lunch every school day.

i. How much rice is that in a day, in kg and g?
ii. How much rice is that in 20 school days, in quintals and kg?

9 Think: three weights [4]

Yugin has a balance and three weights: 1 kg, 2 kg and 4 kg, one of each. He puts the weights in one pan only.

i. Show how he can weigh 1 kg, 2 kg, 3 kg, 4 kg, 5 kg, 6 kg and 7 kg of rice.
ii. He wants to weigh every whole number of kilograms from 1 kg up to 15 kg. Which one weight should he add?
iii. Show how he would then weigh 13 kg.