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How much does it weigh?

Have you ever picked up a sack of rice? Did you find it difficult? Why? What is heavier- a sack of rice or a packet of rice?

How much do you think the rice packet weighs?

How much do you think the sack of rice weighs?



We had learnt in Class 3 that we measure weight in kilograms. We also learnt that we can write kilogram as kg.



You can find 1 kg, 2 kg, 5 kg and 10 kg weights in a grocer's shop. You will find heavier weights-50 kg, 20kg in other shops like those that grind wheat, maize etc. or make mattresses and pillows.

Why do you think these shops need heavier weights?

Try This

Pick up as many weights as you can and find out how heavy they are. Also make 1 kg, 2 kg and 5 kg weights by filling packets with sand or mud, with the help of your teacher. Pick them up to find out how heavy they are.

Let us Estimate their weight.

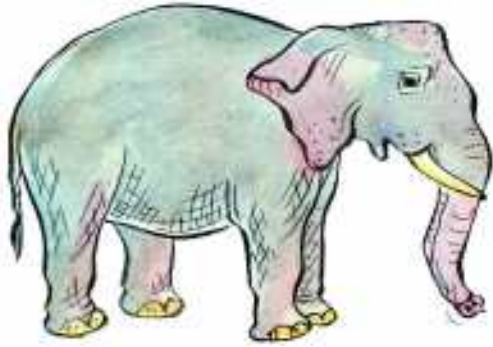
1. Encircle the objects which you feel are heavier than one kilogram.



2. Encircle the objects that weigh about 10 kilograms.



3. Estimate their weights and match appropriately.



less than 1 kg



15 kg



more than 1000 kg



300 kg



30 kg

How much weight is this truck carrying?

Rajendra and Padma are moving their residence from Vishakapatnam to Hyderabad. The truck is loaded with their luggage. The weight of each luggage is given below.



Luggage	Weight
Bed	45 kgs
Refrigerator	60 kgs
TV	15 kgs
Utensils	10 kgs
3 Suitcases	60 kgs
Table	10 kgs
3 chairs	15 kgs
Almirah	30 kgs

- (a) How much weight is the truck carrying? _____
- (b) If Rajendra and Padma are paying ₹ 20 for every kilogram of luggage, how much money will they pay to the truck company? _____

How heavy are these mattresses and pillows?

Sultana makes mattresses and pillows by filling them up with cotton. She has 145 kgs of cotton lying in her shop.

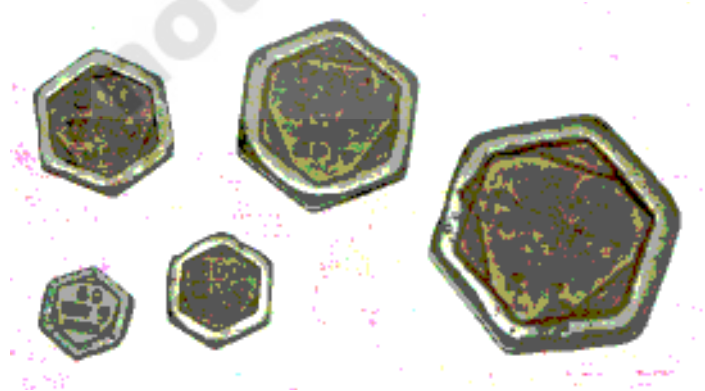
Raghu asks her to make one mattress and two pillows. Sultana used 20 kgs of cotton in the mattress and 2 kgs cotton in each of the pillows.

- How much cotton will be left with Sultana after she makes the mattress and the pillows? _____
- How many such mattresses can Sultana make from the cotton she has left with her? _____
- Sultana charges ₹ 15 for every kg of cotton she has used. She also charged ₹ 200 for sewing the mattress and pillows and another ₹ 125 for the cloth she has used. What is the total amount that Raghu has to pay her? _____



From kilograms to grams

Things that are lighter than one kilogram are measured in grams. You may have come across 500 gm, 200 gm, 100 gm, 50 gm, 20 gm, 10 gm weights at the grocer's shop. Some are shown here.



$$1 \text{ kg} = 1000 \text{ gm}$$

Pick up each of these weights and find out how heavy they are.

How much do you think a pencil weighs?

A pencil weighs about 3 grams.



Let us Estimate their weight.

1. Encircle the names of objects which are heavier than a pencil.

Pin Spoon A tamarind seed Cup Ant A piece of chalk

Activity

Go to a grocer's shop. Pick up things which have their weights written on their packets and fill the table given below-

Things that weigh about 50 gm	Things that weigh about 150 gm	Things that weigh about 250 gm	Things that weigh about 500 gm	Things that weigh about 1 kg

In how many ways can Mary purchase 1 kg of washing powder?



One day Mary went to a shop to buy washing powder. The shop keeper told Mary that he only kept washing powder in packets of 250 gm, 100 gm and 500 gm.

Mary remembered what her teacher had taught her.

In how many ways can Mary buy 1kg of soap powder? One has been done for you.

(i) $1\text{kg} = 1000\text{ gm} = 500\text{ gm} + 500\text{ gm}$

Mary can buy 2 packets of 500 gm each.

(ii) $1\text{kg} = 1000\text{ gm} = 100\text{ gm} + \underline{\hspace{2cm}}$

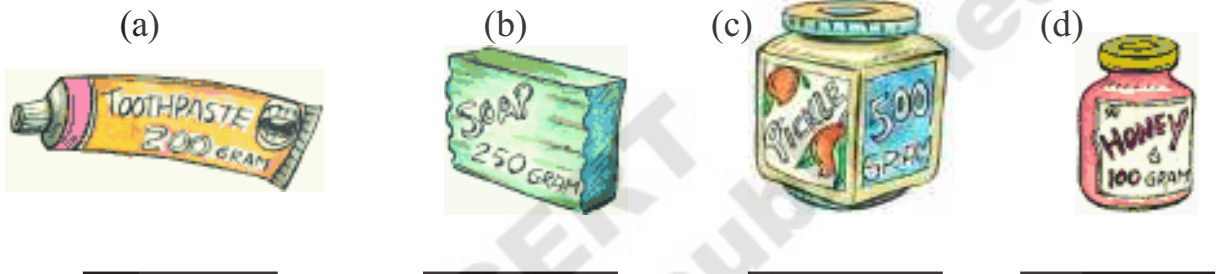
Mary can buy packets of 100 gm each.

(iii) $1\text{kg} = 1000\text{ gm} = 250\text{ gm} + \underline{\hspace{2cm}}$

Mary can buy packets of 250 gm each.

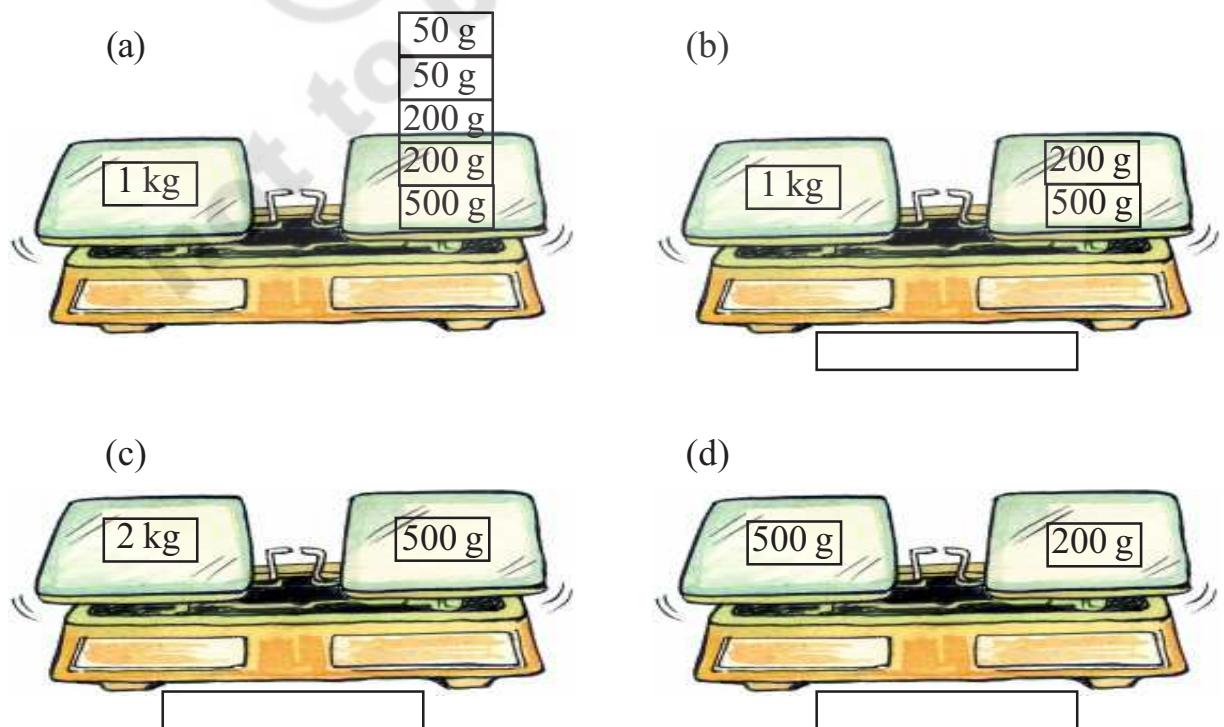
Do This

How many of these will you need to make a kg?



Balance the scale

Balance the weighing scales given below by putting appropriate weights. Use 1 kg, 500 gm, 200 gm, 100 gm, 50 gm, 20 gm, 10 gm weights. The first one has been done for you write the weights to be kept in the boxes under each.



Try This

Kamal uses 2 kg, 5 kg and 6 kg stones to weigh the waste newspaper he gets at his shop. How will he weigh newspaper loads that weigh 1 kg, 3 kg, 4 kg and 7 kg with these stones?



At the post office

Have you ever been to a post office?

We go to a post office to send letters and parcels to our friends and family who live far away from us.

The table given below tells you how much it costs to send letters and parcels within our country-



Item	Rate (as per weight)
Letter	₹ 5 (for every 20 grams or less)
Parcel	₹ 19 (for the first 500 grams) ₹ 16 (for every 500 grams after)



- (a) Radha has written a long letter to her friend. The post master tells her that her letter weighs 45 grams. How much money will Radha have to pay to the post master?
- (b) Radha is sending three pochampali saris to her friend in Udaipur. The parcel weighs 2kg 500gm. How much money should Radha pay to the postmaster?

Various ways of measuring weight

These days various types of electronic devices are used to measure weight.



Do This

1. Use a weighing machine and find out your weight and that of four of your friends. Record your findings in the table given below.



Name	Weight

Try This

1. What is heavier - one kg of cotton or one kg of iron?



Exercise

1. Estimate whether Kalyan bought the items mentioned in his grocery bill in grams or kilograms

Item	Weight	kg/ g
Rice	10	
Sugar	2	
Dal	500	
Haldi	250	
Tea Powder	200	
Mustured Seeds	25	

2. Name 5 things we usually buy in kilograms and 5 things we usually buy in grams.
3. During pongal 20 kg of rice was made in Latha's house. 8 kg 500 gm was eaten by family members and friends. The rest was distributed among the poor. How much rice was distributed among the poor?
4. A boat can carry 200 kg weight. If the weight of people in the boat is 112 kg, how much more weight can the boat carry?
5. Mahesh weighs 78 kg and Ramesh weighs 95 kg. How much more does Ramesh weigh than Mahesh?
6. My weight is 22 kg. My father's weight is 3 times my weight. What is my father's weight?



7. An auto trolley is carrying gas cylinders of 700 kg weight. A full gas cylinder weighs about 35 kg. How many such gas cylinders are there in it?



8. A motor cycle weighs 200 kg. If a jeep's weight is 9 times of the motor cycle's, what is the jeep's weight?

9. Fill in the blanks given below-

- (a) 4 kg of rice = _____ gm of rice
 (b) 2 kg 500 gm of dal = _____ gm of dal
 (c) 6 kg 500 gm of sugar = _____ gm of sugar
 (d) 1250 gm of onions = 1 kg 250 gm of onions
 (e) 1750 gm of tomatoes = _____ kg _____ gm of tomatoes
 (f) 2550 gm of potatoes = _____ kg _____ gm of potatoes

10. Estimate weights and then compare with actual weight.

Item	Estimated Weight	Actual Weight	Difference
Puppy (pet dog)			
Your school bag			
Your brother/sister			
Geometry box			
1 litre water bottle (Full)			
Necklace			