

Exercise 1.5

Question: 1

How many milligrams make one kilogram?

Solution:

Ten lakh or one million (10, 00, 000) milligrams make one kilogram.

Question: 2

A box of medicine tablets contains 2, 00,000 tablets each weighing 20mg. what is the total weight of all the tablets in the box in grams? in kilograms ?

Solution:

Given data: Each tablet weighs = 20 mg

Therefore, The weight of 2, 00,000 tablets = $2, 00,000 \times 20 = 40, 00,000$ mg

Therefore, The total weight of all the tablets in the box = 40, 00,000 mg

We know $1 \text{ g} = 1,000 \text{ mg}$

Weight of the box having all tablets = $40,00,000 \div 1,000 = 4000\text{g}$

And, as $1 \text{ kg} = 1,000 \text{ g}$

Therefore, Weight of the box having all tablets = $4,000 \div 1,000 = 4000\text{g} = 4 \text{ kg}$

Question: 3

Population of sundarnagar was 2, 35,471 in the year 1991. In the year 2001 it was found to have increased by 72,958. What was the population of the city in 2001?

Solution:

The population of Sundar Nagar in 2001 = Sum of the population of city in 1991 + Increase in population over the given time period

As given in the question, The population of Sundar Nagar in 1991 = 2, 35,471

As given in the question,

Increase in population over the given time period = 72.958

Therefore, The population of Sundar Nagar in 2001

$$= 2, 35,471 + 72,958 = 3, 08,429$$

Question: 4

A book exhibition was held for four days in a school. The number of tickets sold at the counter on the first, second, third and final days were respectively 1094, 1812, 2050 and 2751. Find the total number of tickets sold on all the four days.

Solution:

Total number of tickets sold on all four days is the sum of the tickets sold on the first, second, third and final days.

Therefore, total number of tickets sold on all four days is given by:

$$= 1094 + 1812 + 2050 + 2751 = 7707$$

Question: 5

The town newspaper is published every day. One copy has 12 pages. Everyday 11,980 copies are printed. How many pages are in all printed every day? Every month?

Solution:

As given in the question,

Number of pages in 1 copy of newspaper = 12

Therefore, Number of pages in 11,980 copies of newspaper

$$= 11,980 \times 12 = 1, 43,760$$

Thus, 1, 43,760 pages are printed every day.

Now, number of pages printed every day = 1, 43,760

Therefore, Number of pages printed in a month = 1, 43,760 \times 30 = 43, 12,800

Thus, 43, 12,800 pages are printed in a month.

Question: 6

A machine, on an average, manufactures 2825 screws a day. How many screws did it produce in the month of January 2006?

Solution:

As given in the question,

Number of screws produced by a machine in a day = 2,825

Therefore, Number of screws produced by the same machine in the month of January 2006 = $2,825 \times 31 = 87,575$

Thus, machine-produced 87,575 screws in the month of January 2006.

Question: 7

A famous cricket player has so far scored 6978 runs in test matches. He wishes to complete 10,000 runs. How many more runs does he need?

Solution:

Runs scored by cricket player in test matches = 6,978

Therefore, Remaining runs required to complete 10,000 runs

$$= 10,000 - 6,978 = 3,022$$

Thus, the player needs to score 3,022 more runs to complete 10,000 runs.

Question: 8

Ravish has Rs. 78,592 with him. He placed an order for purchasing 39 radio sets at Rs. 1234 each. How much money will remain with him after the purchase?

Solution:

Ravish's initial money = Rs.78, 592

He purchased 39 radio sets at Rs.1, 234 each.

Therefore, Money spent by him on purchasing 39 radio sets

$$= 1,234 \times 39 = \text{Rs. } 48,126$$

Therefore, Remaining money with Ravish after the purchase = Initial money - Money spent on purchasing 39 radio sets = Rs. 78,592 - Rs. 48,126 = Rs. 30,466

Thus, 30,466 are left with him after the purchase.

Question: 9

In an election, the successful candidate registered 5, 77,570 votes and his nearest rival secured 3, 48,685 votes. By what margin did the successful

candidate win the election?

Solution:

Margin of victory in the election for the successful candidate = Number of votes registered by the winner – Number of votes secured by nearest rival candidate

Votes registered by the winner = 5, 77,570

Votes secured by the rival = 3, 48,685

Therefore, Margin of victory for the successful candidate

$$= 5, 77, 570 - 3, 48, 685 = 2, 28, 885$$

Question: 10

To stitch a shirt 2m 15 cm cloth is needed. Out of 40 m cloth, how many shirts can be stitched and how much cloth will remain?

Solution:

As given in the question, Total length of available cloth = 40 m = 4,000 cm (1 m = 100 cm)

As given in the question, Length of cloth required to stitch a shirt = 215 cm = 200 + 15 = 215 cm

Therefore, The number of shirts that can be stitched from the 40-metre cloth

$$= 4,000 / 215 = 18.60$$

As the number of shirts has to be a whole number, we consider the whole part only. That is, 18 such shirts can be stitched.

Therefore, Cloth required for stitching 18 shirts = 215 x 18 = 3870 cm.

Therefore, Remaining cloth = 4,000 – 3870 = 130 cm = 1.3 m

Question: 11

A vessel has 4 litre and 650 ml of curd. In how many glasses, each of 25 ml capacity, can it be distributed?

Solution:

The number of glasses in which curd can be distributed = Total amount of curd/Capacity of each glass.

Total amount of curd in the vessel = $4,650 \text{ ml} = 4,000 + 650 = 4,650 \text{ ml}$

($1 \text{ L} = 1,000 \text{ ml}$)

Capacity of each glass = 25 ml

Therefore, Number of glasses in which curd can be distributed = $4,650/25 = 186$

Question: 12

Medicine is packed in boxes, each such box weighing $4 \text{ kg } 500 \text{ g}$. How many such boxes can be loaded in a van which cannot carry beyond 800 Kg ?

Solution:

Sol :

As given in the question,

Total capacity of a van carrying boxes of medicines = $800 \text{ kg} = 8,00,000 \text{ g}$ ($1 \text{ kg} = 1,000 \text{ g}$)

As given in the question, Weight of each packed box

= $4,500 \text{ g} = 4,000 + 500 = 4,500 \text{ g}$

Therefore, Total number of boxes that can be loaded in the van

= $8,00,000 / 4,500 = 177.77$

The obtained number of boxes is not a whole number.

Therefore, Weight of 177 boxes = $177 \times 4,500 = 7,96,500 \text{ g}$ (under permissible limit)

Therefore, Weight of 178 boxes = $178 \times 4,500 = 8,01,000 \text{ g}$ (beyond permissible limit)

Therefore, we can't load 178 boxes; hence, we can say that 177 boxes can be loaded in the van.

Question: 13

The Distance between the school and the house of a student is $1 \text{ Km } 875 \text{ m}$. Every day she walks both ways between her school and home. Find the total distance covered by her in a week?

Solution:

Therefore, Distance between the school and the house of a student

$$= 1,875 \text{ m} = 1,000 + 875 = 1,875 \text{ m} \text{ (1 km} = 1,000 \text{ m)}$$

As given in the question, Distance covered by a student in a day

$$= 2 \times 1,875 = 3,750 \text{ m}$$

$$\text{Total distance covered by her in a week} = 7 \times 3,750 = 26,250 \text{ m} = 26.25 \text{ km}$$



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