

Mathematics

Class : 6

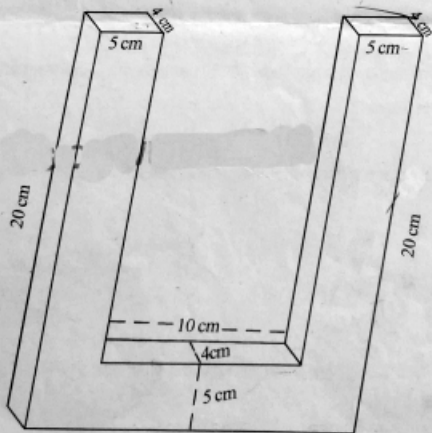
Time : 2 hours

Instructions

1. 15 minutes cool off time is to be allotted for reading and understanding the activities.
2. Answer any **SIX** activities from the given **EIGHT** activities .

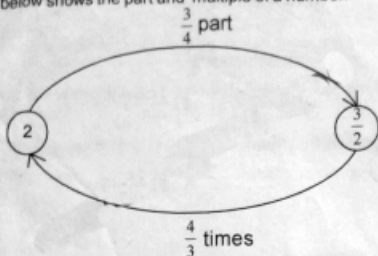
Activity 1 U-TUBE

- A) Calculate the volume of the metal block given below.
- B) If the cost of one cubic centimetre of metal is 8.50 rupees, how much money is needed to buy this ?
- C) If this metal block is melted and recast into a cube, what is the length of one side of this cube?
(a) 10 cm (b) 100 cm (c) 1000 cm (d) 1 cm ✓



Activity 2 Parts and Multiples

The picture below shows the part and multiple of a number.



- A) If we represent multiple and part of the number using multiplication and division, which among the following is true?

(a) $2 \times \frac{2}{3} = \frac{3}{4}$

(b) $2 \times \frac{3}{4} = \frac{3}{2}$

(c) $2 \times \frac{3}{4} = \frac{4}{3}$

(d) $2 \div \frac{2}{3} = \frac{4}{3}$

- B) A vessel is full of sugar. It is packed into 30 packets of $\frac{1}{2}$ kilogram each. How much sugar was in the vessel?
- C) If the sugar is filled in packets of $\frac{3}{4}$ kilograms, find the number of packets obtained.

Activity 3 Fill the pot

A)



A



B

Pot A contains 12.850 kilogram of rice and Pot B contains 7.150 kilogram of rice.
Find the total weight of rice in kilograms.

From Pot A 3.850 kilogram of rice is poured into Pot B. Then,

ii) What is the weight of rice in Pot A?

iii) What is the weight of rice in Pot B?

B) Which among the following is equal to $(7 \times 1) + (8 \times \frac{1}{100}) + (9 \times \frac{1}{1000})$?

- (a) 7.89 (b) 7,980
(c) 7.089 (d) 7.0089

C) The digits in the position of $\frac{1}{10}$ and $\frac{1}{1000}$ of the number 7.980 are interchanged. What is the new number?

Activity 4 Let's factorise

A) Express the numbers given in the table as the product of prime factors

Sl. No.	Number	Prime factors
1	48	$2 \times 2 \times 2 \times 2 \times 3$
2	72
3	128
4	200

B) A number is written as the product of prime numbers as $2 \times 2 \times 2 \times 2 \times 3$. What are the factors of this number?

Activity 5 Volume

A) The inner sides of a rectangular vessel are 20 cm, 10 cm and 5 cm. How many litres of water can it contain?

B) Water in this vessel is poured into a cubical vessel. Vessel is filled. What is the length of one inner side of this cubical vessel?

C) If the water is poured into a vessel of inner length and breadth 25 cm and 20 cm, how high is the water level?

Activity 6 Nature Club

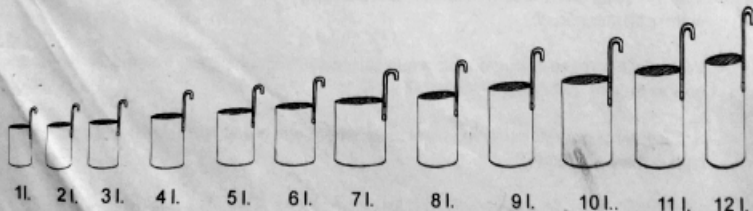
'Haritham Karshika Club' in Ramapuram UP School cultivates ladiesfinger. The following table shows the details of harvest in the last week.

Day	Weight
Monday	11.82 kg
Tuesday	12.5 kg
Wednesday	8.07 kg
Thursday	12.46 kg
Friday	8.65 kg

- A) On which day the harvest is maximum ?
(a) Monday (b) Tuesday (c) Wednesday (d) Thursday
- B) On which day the harvest is minimum ?
- C) How much more ladiesfinger was collected on Monday than Friday?
- D) What is the average weight of ladiesfinger got in the last week?

Activity 7 Measuring vessel

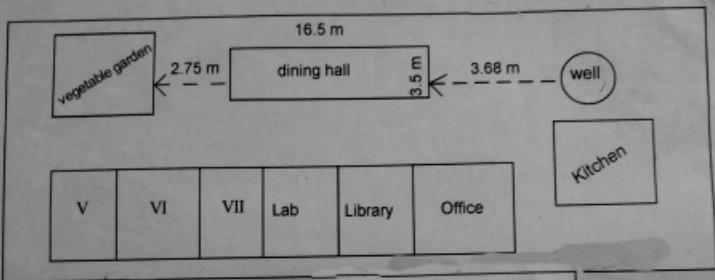
A businessman have 12 measuring vessels of capacity 1 litre, 2 litres, 3 litres,.....12 litres. At a time only one measuring vessel can be used and it can be used any number of times.



- A) Which of these measuring vessels can be used to measure 12 litres of milk?
- B) Write 12 as the product of prime factors.
- C) $900 = 2 \times 2 \times 3 \times 3 \times 5 \times 5$. Find the number of factors of 900 without listing the factors. Explain the method used.

Activity 8 Mitra's School

The plan of Mitra's school premises is given below.



- A) Mitra and her friends use water from the school well for watering the vegetable garden. What is the minimum walkable distance from the well to the vegetable garden?
- B) 28.56 metres of metal wire is needed to fence one round the square shaped vegetable garden. What is the length of one side of the vegetable garden?
- C) The PTA meeting decided to pave tiles in the dining hall. What is the area of the dining hall?