

Class : 7

Mathematics

Time : 2 hours

Instructions

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

Activity – 1 – Let's find out

a	b	c	d
$2 \times 2 \times 2$	$3^2 \times 3^2$	4^2	9^2
e	f	g	h
4^3	64	2^2	8

The number in the circles are interrelated.

- Which circle match with the value of 'a'?
- Which circle match with the value of 'b'?
- Which among these circles are equivalent to 4 times of 'c'.
- Find the value of $f + c$

Activity – 2 – Super market

The investment and sale price of certain items are given below.

Sl. No.	Item	Investment (Rs.)	Transporting charges (Rs.)	Sale price (Rs.)
1	Fridge	12000	200	13000
2	Table	6800	200	7200
3	Washing Machine	7600	400	8400

- Find the profit on selling the fridge?
- Find the profit percentage on the sale price of the washing machine?
- Salim took a loan of rupees 13000 at the rate of 8% interest from Dhanlakshmi Bank for buying a fridge. How much he has to pay back after 2 years?

Activity – 3 – Algebraic form

$$1 \times 1 + 1 = 2$$

$$2 \times 2 + 1 = 5$$

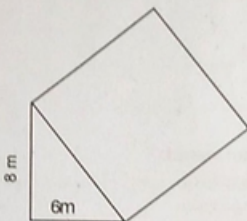
$$3 \times 3 + 1 = 10$$

$$\dots \times \dots + \dots = \dots$$

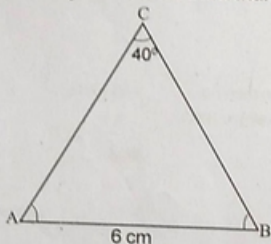
- Write the next line of the pattern.
- Find the answer of the tenth line without doing calculations. Explain the method used for finding the answer.
- Write the algebraic expression of the above pattern.

Activity – 4 – Gopu's Plot

- Look at the figure below. Gopu's plot is in the shape of a right angled triangle. He purchased the nearby square plot also. Find the area of the square plot he bought?
- Write the relation between the area of the square above and the area of squares drawn on the sides of the triangle.



Activity – 5 – Construct a triangle



In ΔABC $\angle A = \angle B$

- Find the measures of $\angle A$ and $\angle B$.
- Construct another triangle with equal measure on three angles.
- Write the peculiarities of the sides of the triangle drawn.

Activity – 6 – For her children

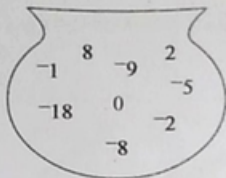
Santha decided to give her salary to her children Ravi and Shinu in the ratio 3:2 . If Ravi gets Rs.4500, then.

- Find the amount Shinu gets?
- How much salary does Santha get?

Activity – 7 – Let's find out

The answers for the items in column 'A' are given in the nearby vessel. Find out the correct answer and write it in column 'B'.

	A	B
a)	$-2 + -3$	
b)	$-5 + 4$	
c)	$-4 + 4$	
d)	$-5 - 4$	
e)	$-8 - -10$	



Activity – 8 – Donation

It was decided to buy flower pots to make a school garden. Each student can donate an amount they wish. The donation received from each class is represented using a bar graph and displayed in the school notice board.

- Find the amount donated by students in each class.
- Draw a pie-diagram showing the amount students have donated.

