ALTERNATE ACADEMIC CALANDER FOR THE MONTH OF **FEBRUARY**
6th Standard   Mathematics   2021-22

SL.NO	WEEK	Important learning objectives	Learning activities	Evaluation
1	Week-1	Chapter: 12. **Ratio and proportion.** They will learn the meaning of ratio and its significance in different situation.	Let us help them to facilitate the meaning of ratio. Let us know the different ratios by comparing two quantities of the same type. **https://youtu.be/JCydgBGWV48**	Solve the problems of Activity- 1. Solve the problems of Exercise 12.1. Solve the problems of page no 43 in Suvega-2.
2	Week-2	**Meaning of proportion. Identifies and analysis its uses in day today life. Know the Unitary system and solve the problems related to this.**	Let us help them to facilitate the meaning of proportion. Let us identify the proportions and solve the problems of proportionality. Let us help them to solve the problems of unitary system. **https://youtu.be/PhlkfgTocuI**	Solve the problems of Activity- 2 and Activity -3 . Solve the problems of Exercise 12. and 12.3 . Solve the problems of page no 44 to 50 in Suvega-2.
3	Week-3	Chapter: 13. **Symmetry.** **Know the meaning of symmetry and its uses in daily life.**	Let us help them to know the meaning of symmetry. Facilitate the idea of symmetrical use in everyday life. Ex: Architectural marvels, building Art, Rangoli and many more. *Doing ink-blot activity in the class room. **https://youtu.be/PSjLp80kwe8**	Solve the problems of Activity- 4. Solve the problems of page no 53 in Suvega-2. Solve the problems of Exercise 13.1.
4	Week-4	**Know the line of symmetry and mirror reflection.**	Let us help them to draw symmetrical axis to the given figures. Let us facilitate the creation of appropriate symmetrical images for the given statements. Let us illustrate by example that the mirror of symmetry is closely related to reflection. **https://youtu.be/AhhYyD1QmbU**	Solve the problems of Activity- 5 and Activity -6 . Solve the problems of Exercise 13.2 and 13.3 . Solve the problems of page no 54 to 57 in Suvega-2.

I Write the ratio for the following images :

Sl.no	Images	Ratio
1	ಉದಿಚಿಜಿಜಿ↑ ಅಚಿ 6 ಟ 30ಸಭಿಟ	Ratio of the height of giraffe and cat **Height of the giraffe =**6 m =6x100 m= 600 cm Height of the cat = 30 cm ratio= 600:30 $=\dfrac{600}{30}=\dfrac{60}{3}=\dfrac{20}{1}$ ratio= 20:1
02	**25 cm** x **20 cm** y	Ratio of the length of pencil x and y =
03	**Weight = 4.5 kg** **Weight = 300 g**	Ratio of weight of watermelon and apple =
04	A B **Area = 24 sq cm** **Area = 3 sq cm**	Ratio of the area of leaf A and B **=**

PROPORTION :- If two ratios are equal, we say that they are in proportion and use the symbol.

' :: ' or ' = ' ِ to equate the two ratios.

EXAMPLE: 25:5::15:3

5 and 15 are known as middle terms.   25 and 3 are known as extreme terms

I Determine if the following are in proportion.

1) 1 : 7 :: 2 : 14
 	
1 : 7 $= \frac{1}{7}$ **2 : 14** $= \frac{2}{14} = \frac{1}{7}$
 	
So that 1 : and 2 : 14 are in proportion
    1 : 7 :: 2 : 14 ِ are in proportion.
	2) 1 : 3 :: 4 : 10
	
	1 : 3 $= \frac{1}{3}$ **4 : 10** $= \frac{4}{10} = \frac{2}{5}$
	So that 1 : 3 and 4 : 10 are not in proportion
	    1 : 3 ≠ 4 : 10

1) 2 : 5 :: 6 : 15	**2) 1 : 2 :: 5 : 10**
3) 1 : 5 :: 8 : 35	**4) 3 : 4 :: 15 : 20**
5) 3 : 5 :: 14 : 35	**6) 5 : 6 :: 25 : 40**

II fill in the blanks :

1) 2 : 10 = ___ : 50   **Answer**:- 2 : 10 = **10** : 50

2) 2 : 6 = 6 : ____   **Answer**:-

3) ___ : 9 = 10 : 90   **Answer**:-

4) 2 : ___ = 8 : 20   **Answer**:-

5) 2 : 8 = ____ : 48   **Answer**:-

6) 2 : ___ = 7 : 49   **Answer**:-

7) 2 : 4 = ___ : 32   **Answer**:-

8) 2 : 7 = 6 : ___   **Answer**:-

9) ___ : 10 = 4 : 20   **Answer**:-

10) 3 : ___ = 18 : 60   **Answer**:-

Standard: 6th	ACTIVITY SHEET - 3	Month: FEBRUARY
Name:		RATIO AND PROPORTION

Unitary Method:- The method in which first we find the value of one unit and then the value of required number of units is known as **Unitary method**.

Model problem:- Cost of 15 balls is ₹96 then what will be the cost of 5 balls ? **.**

   Solution : Cost of 12 balls = ₹96

   So that cost of 1 ball = $\frac{96}{12}$ = ₹ 8

   So cost of 5 balls = 5 x 8 = ₹ 40

   Cost of 5 balls = ₹ 40.

1) **Cost of 25 pens is ₹125, then what is the cost of 35 pens?**

2) **Cost of 1 dozen pencils is ₹66 , then what is the cost of 15 pencils ?**

3) **Weight of 80 apples is 16 kg , then what is the weight of 55 apples ?**

4) **Ganesh purchases 8 kg sugar for ₹320 and Suresh purchases 6 kg sugar for ₹246. Can you say who got the sugar cheaper?**

4

Symmetry is quite a common term used in day to day life.

Example: Architectural marvels, Art, Costume design, Technology, Description of Geometry, Rangoli etc.

Line of symmetry: suppose we could fold a picture in half such that the left and right halves match exactly then the picture is said to have line symmetry or axis of symmetry.

- Some shapes have 1, 2 or more lines of symmetry or no lines of symmetry.

Shapes with lines of symmetry	Shapes with no lines of symmetry
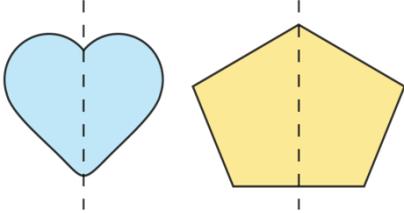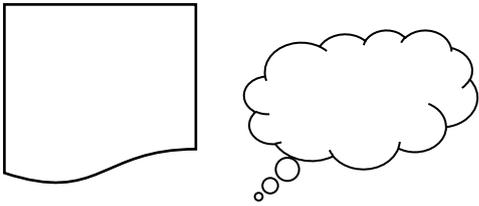
I) **Separate the following shapes into symmetrical and non-symmetrical**
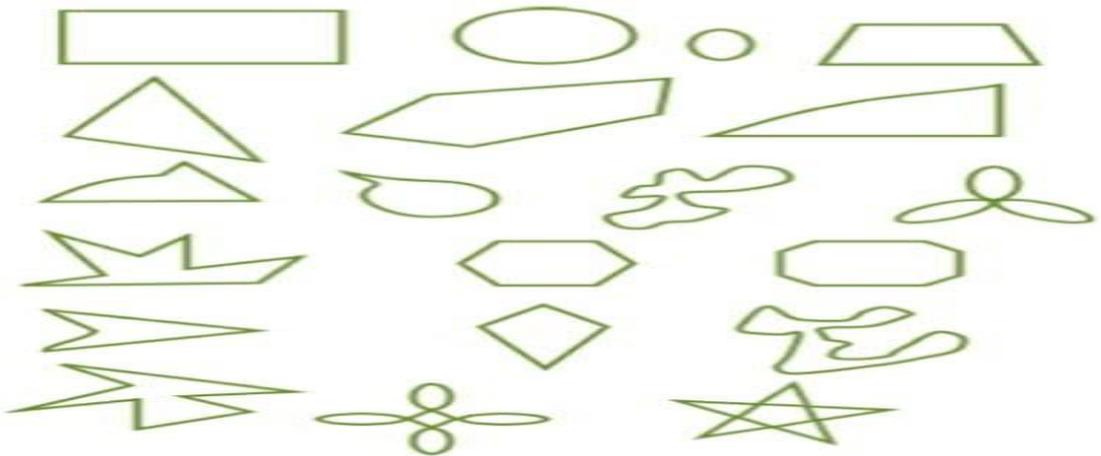
shapes :

Symmetrical shapes	Non Symmetrical shapes

Note :Do the Ink-blot Devils activity to the children.

I : Draw the line of symmetry for the following shapes:
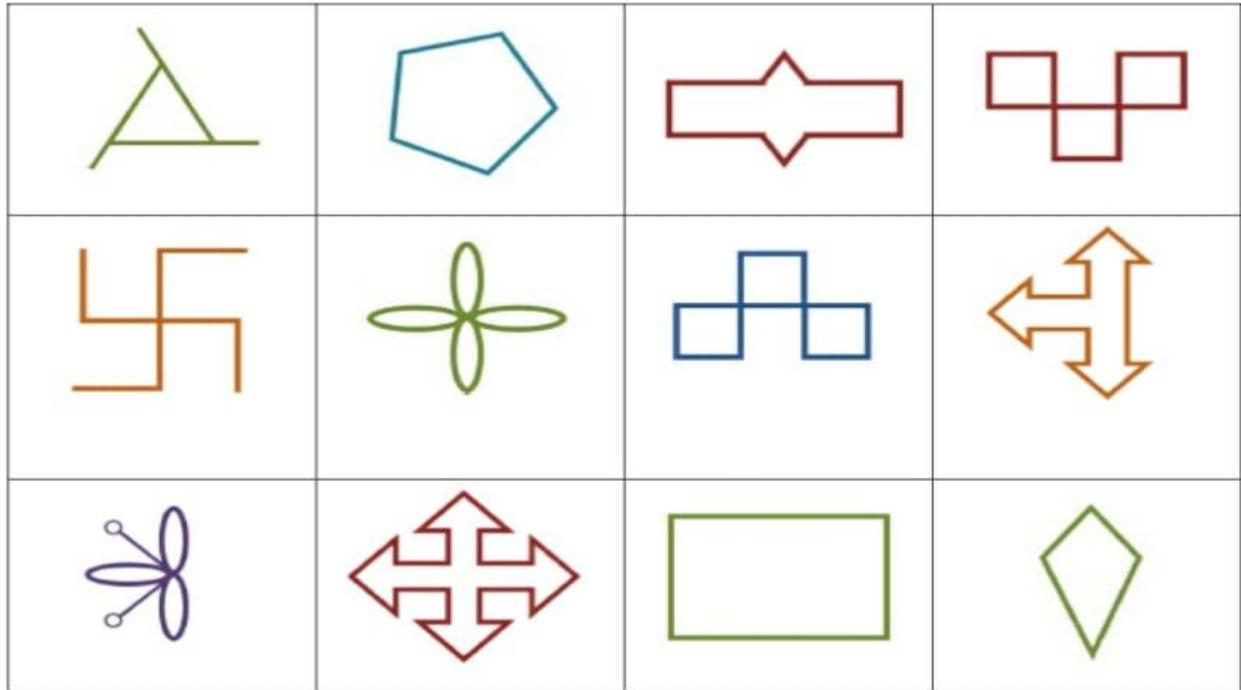
II Complete the following figures:
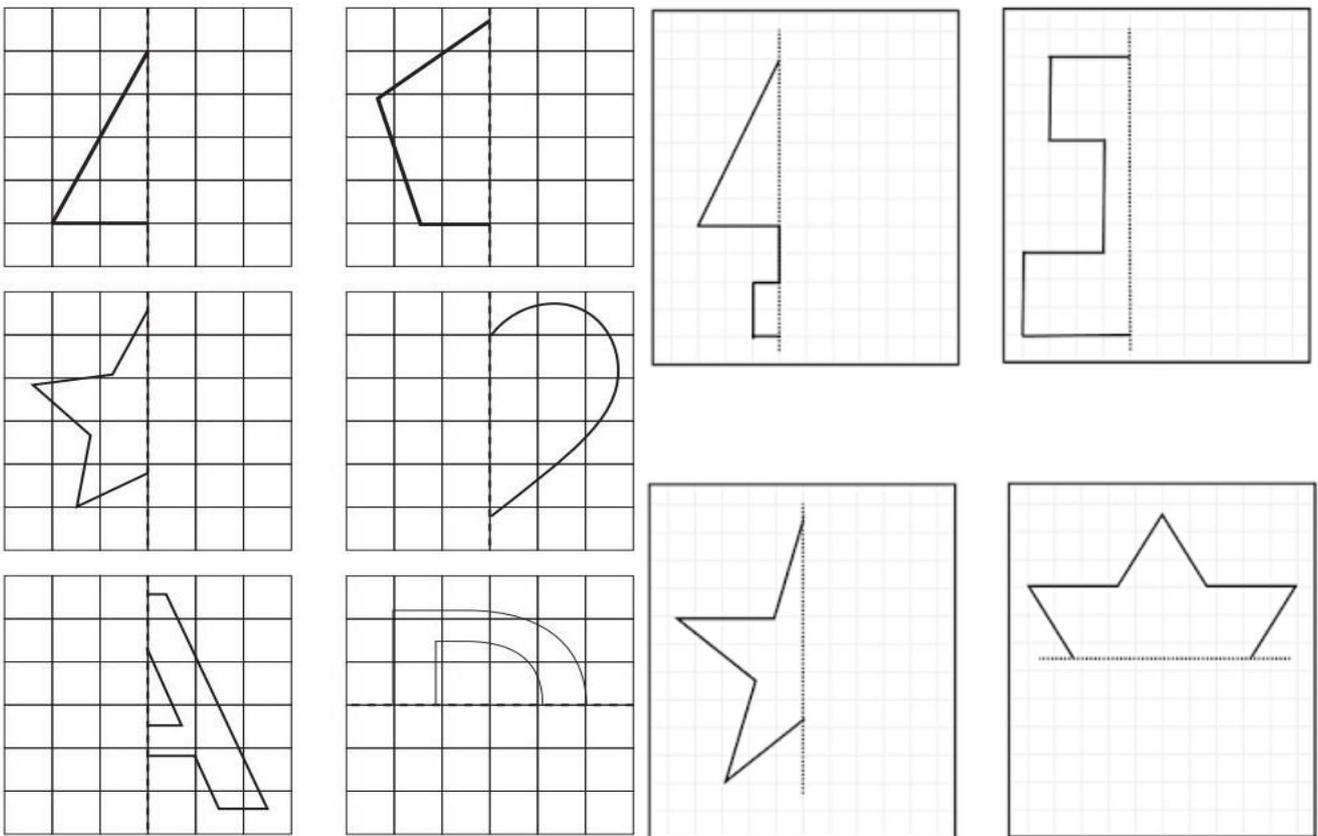
III) Find the number of lines of symmetry for each of the following shapes:

_____   _____   _____

_____   _____   _____
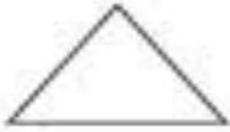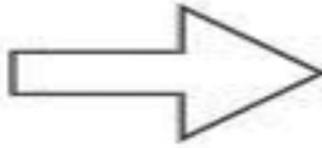
IV) Answer the following question:

1) A triangle has only one line of symmetry is called as _____ triangle.

2)_____triangle has no line of symmetry.

3) Which of the following shapes has exactly one line symmetry ?

  * Scalene triangle

  * Equilateral triangle

  * Isosceles triangle

4) Which of the following shapes has exactly two line symmetry ?

  * Rectangle
  * Square
  * Regular Hexagon

5) Which of the following letters has no symmetry lines?

A, O, C, Q, E, S, G, U, I, W, K, Y, M

6) Which of the following letters has a symmetry line?

N, B, P, D, R, F, T, H, V, J, X, L, Z

7) Which of the following numbers has a symmetry line?

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

I Create images based on the following statements:

Sl.no	Statement	Image
1	**A quadrilateral with one line of symmetry**	
2	**A triangle with one line of symmetry**	
3	**A quadrilateral with two line of symmetry**	
4	**A triangle with no line of symmetry**	