

## MATHEMATICS HOLIDAY HOMEWORK - CLASS X (2023-24)

### OBJECTIVES:

- \* To keep students engaged by doing various interesting and innovative activities.
- \* To ensure that students revise the work done in the class .
- \* To develop the habit in students to search for relevant information on the Net and learn something new every week.

### Note:

All work is to be done on coloured A4 size sheets and a file is to be prepared.(PORTFOLIO)

### \*WEEK 1

1) Prepare a CROSSWORD by framing suitable statements for the following Mathematical Terms:

- Circle , Triangle , Parallel lines, Hexagon, Regular figures, Cone, Cube, Cuboid.
- 2) Read about the Golden Ratio and explain the concept in any one monument/ situation.
- 3) Draw any object which is made up of two solid shapes ( Combined Solids) . Derive the formula for its total surface area and volume.
- 4) Do the assignment on Real Numbers

### \*WEEK 2

- 1) See the following video on Similar Triangles by copying the link and understand the activity  
<https://youtu.be/u06Bedra880>
- 2) Read about the MATHEMATICS AWARDS IN INDIA and write about any one Mathematician of this decade.
- 3) Do the LAB ACTIVITY that is based on Linear Equations in Two Variables
- 4) Do the assignment on Polynomials.

### \*WEEK 3

- 1) Do the following LAB ACTIVITY by cutting and pasting:  
Verify experimentally that lengths of tangents drawn from an external point to a circle are equal.
- 2) See the following video and on an A 4 sheet write one another example where you find geometry in nature.  
<https://medium.com/purple-museum/finding-geometry-in-nature-797523737555>
- 3) Prepare one A 4 size sheet by drawing WORLI ART/ FRACTAL / TESSELLATION.  
You can see the following videos for reference.  
<https://youtu.be/yffJj6z46gg>  
<https://youtu.be/tJH4kSv8ics>

### \*WEEK 4

- 1) Do the assignment on Pair of Linear Equations in Two Variables.
- 2) Prepare 5 MAGIC SQUARES of 4x4. You can see the following video to understand how it is to be made.

<https://youtu.be/jonli7IEWTg>

°AIL ACTIVITY:

On an A 4 size sheet depict an underwater scene by PAPER QUILLING and SKETCHING (use various geometrical shapes)