

Holiday Homework
Subject: Mathematics
Class: XII

Topic: Art integration with Mathematics

Art and mathematics closely related in terms of reasoning skills and pattern recognition. Artists and Mathematicians, both use geometry in their work, including shapes, symmetry, proportions and measurements.

Keeping all this in mind students will do one of the following project according to their choices:

1. Using Golden Ratio(1:1.618) create designs of different objects

(Ref ; <https://99designs.com/blog/tips/the-golden-ratio/>)

2. Mandala Art

(Image for ref : <https://www.art-is-fun.com/how-to-draw-a-mandala>)

3. Draw a portrait using Mathematical formulas.

(Image for ref : https://drive.google.com/file/d/1Hvtd9jDzFHfw6Miv61jB0Ta_5QGHjoVC/view)

4. Learn how to use Microsoft, Excel for addition ,subtraction, multiplication and transpose of matrices. Make a soft copy of the same and paste screenshot of the output on the file along with the project.

Prepare a project report in a file included:

- a. Abstract of the topic
- b. Mathematical logic behind it
- c. Learning Outcomes