

KENDRIYA VIDYALAYA GOLDEN ROCK

SUMMER VACATION HOMEWORK CLASS X

SUBJECT ENRICHMENT ACTIVITY

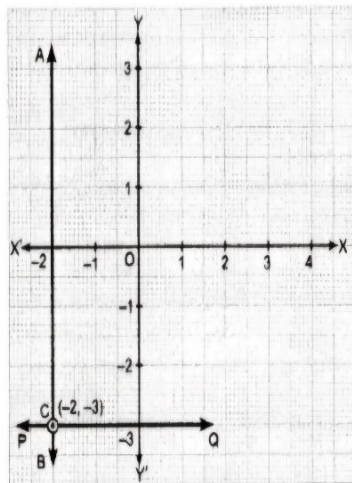
A. Prepare a Maths Journal- Using Art with Maths

The journal should contain the following articles:

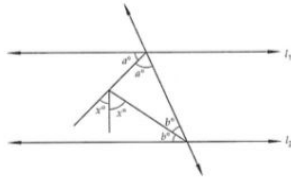
- a) Evolution of the Number System from Natural Numbers to Real Numbers.
- b) Use your imagination and art skills to draw pictures to support your write-up of this journal.
- c) Will the journey continue further after the real number system? What do you think support with explanation and examples?
- d) Properties of real numbers
- e) Real Life Problems

WORKSHEET (Write on A4 sheets)

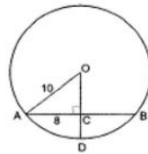
1. Write the linear equation represented by lines AB and PQ. Also, find the coordinates of the intersection of lines AB and PQ.



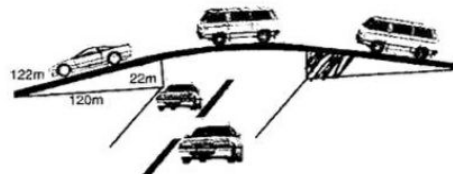
2. For what value of c , the linear equation $2x + cy = 8$ has equal values of x and y for its solution?
3. The decimal expansion of $147/120$ will terminate after how many places of decimal?
4. Prove that $(5 - \sqrt{2})$ is irrational.
5. The point whose ordinate is 3 and which lies on the y -axis is
a. $(3,3)$ b. $(3,1)$ c. $(3,0)$ d. $(0,3)$
6. In figure, if $l_1 \parallel l_2$ then the value of x is



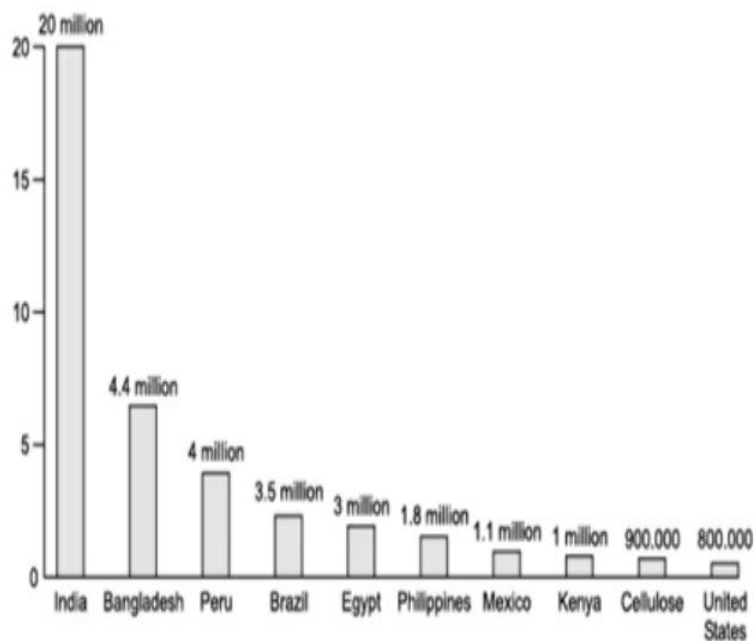
7. Assertion (A): The sides of a triangle are in the ratio of 25:14:12 and its perimeter is 510 cm. Then the area of the triangle is 4449.08 cm².
Reason (R): Perimeter of a triangle = $a + b + c$, where a, b, c are sides of a triangle.
a. Both A and R are true and R is the correct explanation of A.
b. Both A and R are true but R is not the correct explanation of A.
c. A is true but R is false.
d. A is false but R is true.
8. In given figure, if $OA = 10$, $AB = 16$ and $OD \perp AB$. Find the value of the CD .



9. Represent $\sqrt{5}$ on the real line.
10. Factorize: $6x^2 + 5x - 6$.
11. If $a + b + c = 5$ and $ab + bc + ca = 10$, then prove that $a^3 + b^3 + c^3 - 3abc = -25$
12. Find the LCM and HCF of 96 and 404 and verify that $\text{LCM} \times \text{HCF} = \text{product of the two numbers}$.
13. Two alarm clocks ring their alarm at regular intervals of 72 sec and 50 sec. If they beep together at noon, at what time will they beep again for the first time?
14. The triangular side walls of a flyover have been used for advertisements. The sides of the walls are 122 m, 22 m and 120 m (see Fig.). The advertisements yield an earning of 5000 per m² per year. A company hired one of its walls for 3 months. How much rent did it pay?



16. Find the zeroes of the quadratic polynomial $x^2 - 5$ and verify the relationship between the zeroes and the coefficient.
17. Find a quadratic polynomial, the sum and product of whose zeroes are -3 and 2, respectively.
18. Child labour refers to any work or activity that deprives children of their childhood. It is a violation of children's rights. This can harm them mentally or physically. It also exposes them to hazardous situations or stops them from going to school. Naman got data on the number of child laborers (in millions) in different countries that is given below.



- a. What is the difference between highest no. of child labor and the minimum no. of child labor?
 - b. What is the percentage of no. of child labor in Peru over the no. of child labor in India?
 - c. What is the total no. of child labor in the countries having child labor more than 2 million?
19. Once four friends Rahul, Arun, Ajay and Vijay went for a picnic at a hill station. Due to peak season, they did not get a proper hotel in the city. The weather was fine so they decided to make a conical tent at a park. They were carrying 300 m² cloth with

Class 10 – English Holiday Home work

1. Email Writing:

Write an email to your friend describing your experience of attending a summer camp and how it helped you develop new skills.

2. Grammar Practice:

Write one sentence as an example for each of the 12 tenses in English grammar.

3. Article Writing:

Write an article (150–200 words) on any one of the following topics:

*The importance of reading books in the digital age

*The advantages and disadvantages of online classes

*My mission for a better India

4. Formal Letter Writing:

Write a letter to the editor of an English daily making a plea to the common people to switch over to solar energy to conserve electricity and reduce electricity bills

5. Project work:

Students will work in groups of 6 members.

Each group will research 6 herbal plants suggested on page 38 of the MCB book.

Prepare a PowerPoint Presentation (PPT) covering important details about each herbal plant.

Each student in the group will present one plant. Make sure the PPT is colorful, creative, and informative.

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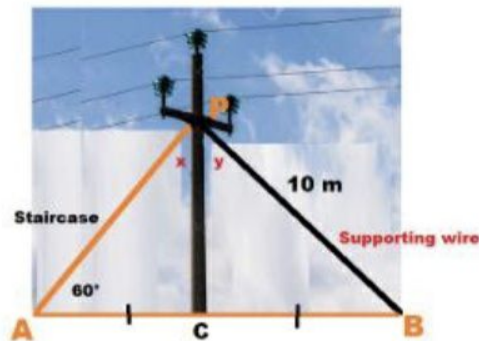
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them. As shown in the figure they made the tent with height 10 m and diameter 14 m. The remaining cloth was used for the floor.



- a. How much Cloth was used for the floor?
 - b. What was the volume of the tent?
 - c. What was the area of the floor?
20. As shown In the village of Surya there was a big pole PC. This pole was tied with a strong wire of 10 m in length. Once there was a big spark on this pole, the wires got damaged very badly. Any small fault was usually repaired with the help of a rope which normal board electricians were carrying on bicycles. This time electricians need a staircase of 10 m so that it can reach point P on the pole and this should make 60° with line AC.



- i) Show that $\triangle APC$ and $\triangle BPC$ are congruent.
- ii) Find the value of $\angle x$.
- iii) What is the value of $\angle PBC$?

English

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SST

Subject Enrichment Activity:

1. Read all the chapters of History and Political Science book.
2. Compile the map locations and identification for all the chapters of History and Geography given in the syllabus by filing them in the map of India.

Hindi

1. सूरदास और उनकी अन्य कविताओं के बारे में लिखिए

2 नेताजी सुभाष चंद्र बोस के व्यक्तित्व और कृतित्व पर लिखिए

3 नगरपालिका क्या-क्या काम करता है उसके बारे में लिखिए

Write in A4 sheet

Sanskrit

CLASS – X (HHW)

1. शब्दरूपाणि –

अस्मद् , युष्मद् , कद् (विणी लिङ्गानि) ,

2. धातुरूपाणि –

अस् , भू , दृश्

3. सन्धिविच्छेदं कुरुत –

(क) नैतादृशाः

(ख) कृतोपकारः

(ग) सर्वेऽपि

(घ) वृष्टिभिरार्द्रयन्ति

4. चित्रं दृष्ट्वा मञ्जूषात पदानि च चित्वा : रीकृत्यनानि पूरयत

कमलानि, उदेति, क्रीडन्ति, उद्यानस्य, सन्ति



मञ्जूषा -

क) इदं चित्रं _____ अस्ति ।

ख) उद्याने बालकाः कन्दुकैः _____ ।

ग) चित्रे _____ विकसन्ति ।

घ) चित्रे सूर्यः _____ ।

ङ) चित्रे बृहगाः _____ ।

5. भवान् अरविन्दः । ग्रीष्मवकाशे भ्रमणाय स्वमित्रं प्रति लिखितम् इदं पत्रं मञ्जूषायां प्रदत्तैः उचितैः शब्दैः पूरयित्वा पुनः लिखतु ।

आनन्दविहारः

नवदिल्लीतः

प्रिय मित्र

तिथि

नमो नमः

अत्र कुशलं । भवतः पत्रम् पठित्वा चित्तम् प्रसीदत् । अधुना अस्ति यत् अहं उत्तीर्णः अभवम् । आशास्ति त्वमपि उत्तमश्रेण्यां भविष्यसि । अहं भवतां समीपम् आगन्तुम् इच्छामि । अहं सह ग्रीष्मवकाशे मसूरीनगरे यापयिष्यामि । तत्र हिमाच्छादिताः जनान् आकर्षयन्ति । अहमपि तत्र प्राकृतिकदृश्यस्य कर्तुम् इच्छामि ।

गृहे माता-पित्रोः मम प्रणामाः ।

भवदीये मित्रम्

अरविन्दः

मञ्जूषा – (मित्रैः, गौरव, प्रथमश्रेण्यां, ग्रीष्मवकाशे, उत्तीर्णः, पर्वतश्रृंखलाः, अवलोकनं, तत्रास्तु, समाचारः, चरणयोः)

Artificial Intelligence

Topic:

"AI Project Lifecycle with Consideration of Ethics and Morality"

Instructions:

1. Choose a problem that you want to solve using Artificial Intelligence. This will be the base for your project idea. (Use your creativity – make your own unique concept!) ([*Ex: A Hotel Running in loss \(do not use this example\)*](#))
2. Apply the 6 stages of the AI Project Cycle to your chosen project. The six stages are:
 - Problem Scoping
 - Data Acquisition
 - Data Exploration
 - Modelling
 - Evaluation
 - Deployment
3. Clearly mention how you will follow ethics and morality in the development of your AI solution.
 - You must include at least one ethical and one moral principle that you will follow.
4. Ensure your presentation is neat, well-organized, and easy to understand.
5. Copying from classmates is strictly not allowed. Plagiarism will result in loss of marks.
6. Submission is due on the first day after school reopens.
7. Be prepared to present and explain your project in class.

This assignment will be counted towards your internal marks, so give it your best effort!

Wishing you a productive and creative holiday!