MATHS

1. Draw the rough figure and find the surface area and volume of the solids mentioned below

(write the answers in terms of π)

a) Hemisphere of radius r surmounted by a cone of radius r, height h & slant height l
b) Cylinder of radius r and height h , having hemispherical ends of radius r
c) Cube of edge $2r$, surmounted by a hemisphere of radius r
d) Hemisphere of radius r scooped out from both ends of a cylinder of height h and radius r
e) Cone of radius r, height h and slant height l , surmounted on a cylinder of height h , and radius r.
f) Cone of radius r, height h and slant height l, scooped out from a cylinder of height h and radius r .

2. A solid is in the form of a right circular cylinder with hemispherical ends. The total height of the solid is 58 cm and the diameter of the cylinder is 28 cm. Find the total surface area of the solid.

3. From a solid cylinder of height 36 cm and diameter 14 cm, a conical cavity of radius 7 cm and height 24 cm is drilled out. Find the volume of the remaining solid.

4. Determine the ratio of the volume of a cube to that of the sphere which will exactly fit inside the cube.
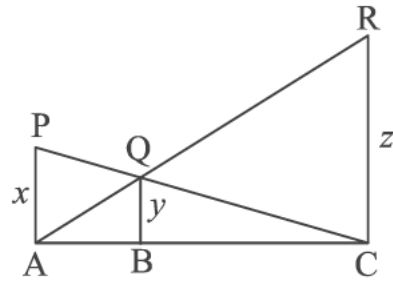
5.
A room is in the form of cylinder surmounted by a hemi-spherical dome. The base radius of hemisphere is one-half the height of cylindrical part. Find total height of the room if it contains $\left(\dfrac{1408}{21}\right)$ m^3

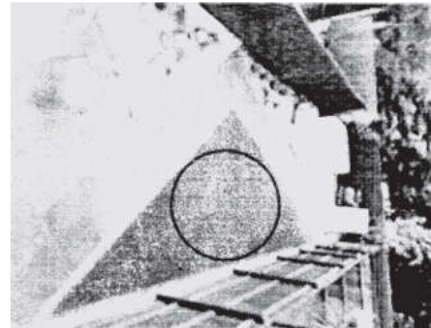of air. $\left(\text{Take } \pi = \dfrac{22}{7}\right)$

6.

OR

In the given figure PA, QB and RC are each perpendicular to AC. If AP = x, BQ = y and CR = z, then prove that $\dfrac{1}{x} + \dfrac{1}{z} = \dfrac{1}{y}$

7.

A backyard is in the shape of a triangle ABC with right angle at B. AB = 7 m and BC = 15 m. A circular pit was dug inside it such that it touches the walls AC, BC and AB at P, Q and R respectively such that AP = x m.
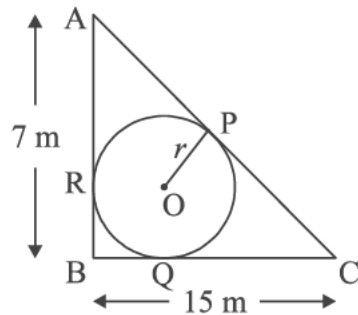
Based on the above information, answer the following questions :

(i)   Find the length of AR in terms of x.

(ii)   Write the type of quadrilateral BQOR.

(iii) (a)   Find the length PC in terms of x and hence find the value of x.

OR

(b)   Find x and hence find the radius r of circle.

ENGLISH

Project 1: Poets and Writers Profile

Objective: To introduce students to the lives and works of notable poets and writers.

Instructions:

1. Choose one poet/writer from each lesson in the Class 10 English syllabus.

2. Create a profile for each poet/writer, including:

   - Photograph

   - Brief biography (30-40 words)

   - Notable works

   - Contributions to literature

3. Organize profiles in a binder or digital presentation.

Project 2: Audio-Visual Presentation

Objective: To enhance students' understanding and appreciation of poetry integrating art.

Instructions:

1. Select one poem from the Class 10 English syllabus.

2. Record an audio narration with proper intonation and pronunciation.

3. Create a video presentation with:

   - Text display

   - Images/ animations

   - Background music (optional)

SSC

1. Make a project on types of rain water harvesting system practiced in various states of India.

2. Paste the picture of election symbols of some regional political parties in Outline India map according to the states.

AI

Write notes of Data Science and CV in your ai notes copy

SANSKRIT

1. विसर्ग संधि के दस उदाहरण लिखो ।

2.निम्न विषयों पर अनुच्छेद संस्कृत में लिखिए-

1.पुस्तकालयः 2- मम विद्यालयः 3- उद्यानं

4- संस्कृत के तीनों पुरुषों (प्रथम मध्यम उत्तम) पर आधारित एक चार्ट का निर्माण करो ।

5-संस्कृत संख्या लिखिए और याद कीजिए ।।

6-कम से कम तीन संस्कृत संवाद लिखिए ।।

७- समास का लिखित अभ्यास करो।

८- चित्र आधारित ३ चित्रों के वाक्य संरचना करो। (पाठ्य सहायक सामग्री पर प्रदत्त है)

HINDI

GIVEN IN CLASS

KENDRIYA VIDYALAYA SONEPUR

CLASS X AUTUMN BREAK HOMEWORK PHYSICS

1. Questions for Practice to be done in notebook

(i) Consider the given circuit and find the current flowing in the circuit and potential difference across the 15 Ω resistor when the circuit is closed.
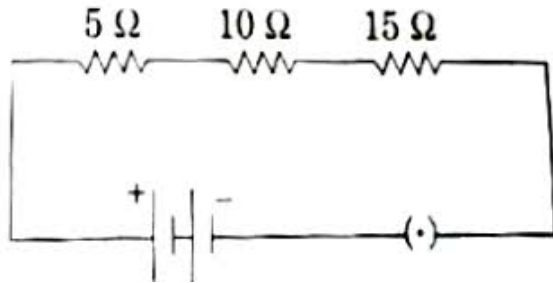
(ii) Two identical resistors are first connected in series and then in parallel. Find the ratio of equivalent resistance in two cases.

(iii) What is the maximum resistance which can be made using five resistors each of $\frac{1}{5}$ Ω

2. PROJECT WORK

Prepare any ONE of the following (working/demonstration model) in a group of 2 OR 3 (maximum) students or individually.

(i) Make a simple circuit consisting of cell, wires, key, bulb (or any testing material)

(ii) Construct a simple spectroscope and analyze different light sources (hint- https://www.youtube.com/watch?v=X-lqK6LgAPY)

(iii) Design some interesting experiments/ tricks with magnets

(iv) Make an electromagnet for demonstration.

(v) Make an electric motor (Hint- https://www.youtube.com/watch?v=WI0pGk0MMhg)

PORTFOLIO

CLASS: 10th
SUBJECT: MATH
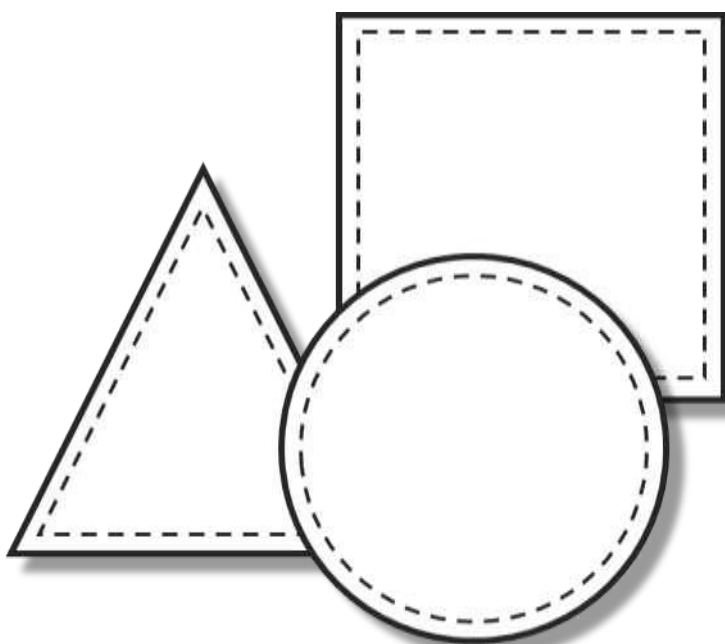
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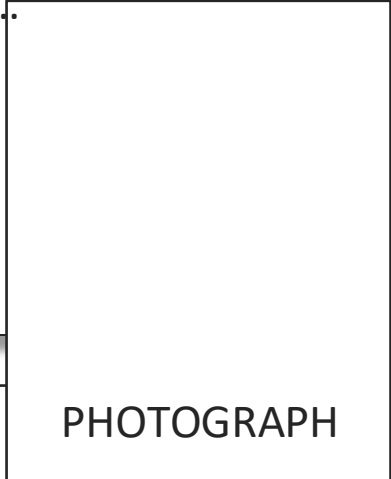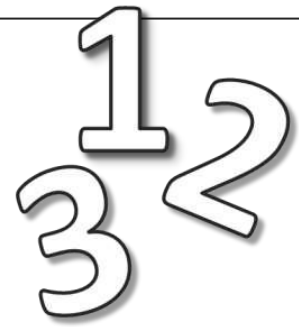
PHOTOGRAPH

MY VIEWS ON MATHS: ....

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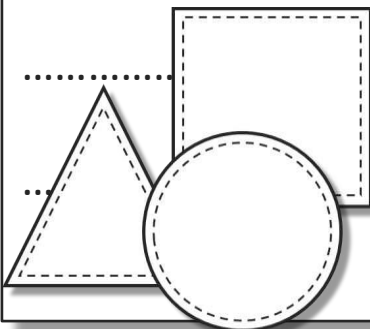
WHAT I HAVE LEARNED IN MATHS TILL DATE (OCT- 7):

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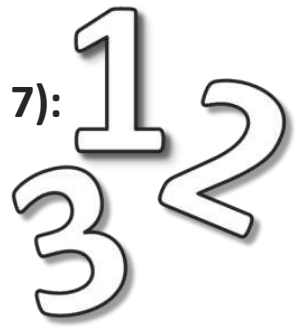
MY EXPECTATIONS FROM MY MATHS TEACHER:

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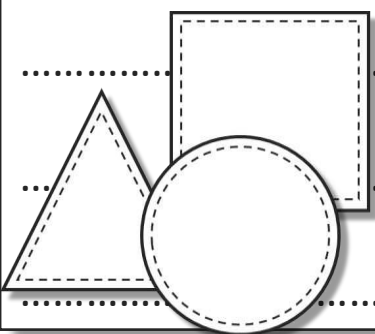
MY ACHIEVEMENTS IN CURRENT SESSION:

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REASON BEHIND SELECTING MATHS STANDARD/MATHS BASIC:

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