



Sri Guru Harkrishan Public School,

Dugri Road Ludhiana

HOLIDAYS HOMEWORK

Relax ♥

Explore ☀

Learn 📖

Have Fun 😊

“Holidays are the perfect time to relax, explore, and grow. ♥

Come back refreshed, recharged and ready to *shine!*”

Use this time to do what makes your *soul happy* and your future bright. ♥

KEEP LEARNING, KEEP GROWING, KEEP SMILING!



SRI GURU HARKRISHAN PUBLIC SCHOOL, LUDHIANA
SUMMER VACATION HOMEWORK 2026

Class – VIII

Mathematics

ACTIVITY: Prepare models on given topics according to your Roll No.

Roll No. 1 – 8 Pythagoras theorem

<https://youtu.be/lo2BXcSq7eI?si=uOSDQjGEQ9zALtI3>

Roll No. 9 – 16 Visualising solid shape

https://youtu.be/kxhsZTPDd_Y?si=vr4QuZKPU2iU11Q5

Roll No. 17- 24 Algebraic Expressions

<https://youtu.be/OJ9bUUBoT4I?si=-DkEio6k53ng5VPZ>

Roll No. 25- 32 Law of Exponents

https://youtu.be/QSLLocvgoaI?si=c0k9JG_6nPP6PsVr

Roll No. 33 – 40 Maths Park Model on theorems

<https://youtu.be/Zq2DcRGQQmg?si=GKGyaeO6MAziVqO>

Worksheet – 1

Note: All work should be done in the Holiday Homework Notebook.

Section – A

Choose the correct option :-

1. A simple closed curve made up of only line segments is called a
(a) Circle (b) Polygon (c) Line (d) None of them
2. The sum of the measures of the interior angles of any polygon is -
(a) 180° (b) 360° (c) 270° (d) 100°
3. One angle of a quadrilateral is 150° and other angles are equal. What is the measure of each of these equal angles ?
(a) 75° (b) 10° (c) 270° (d) None of these

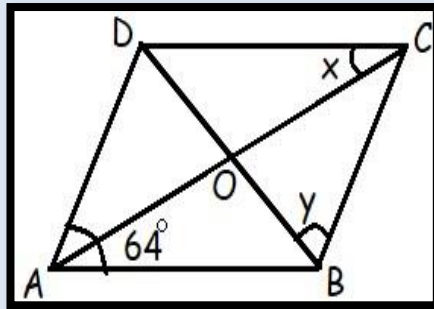
Fill the blanks for the following statements :

4. A parallelogram having all sides equal is called a
5. A quadrilateral having exactly one pair of parallel sides is called a
6. The diagonals of rectangle bisect at right angle. (True/False)
7. The rhombus with one angle 90° is called square. (True/False).

Section – B

8. Two adjacent angles of a parallelogram are $(3x - 4)^\circ$ & $(3x + 10)^\circ$. Find the angles of the parallelogram.

9. If diagonals of rhombus are 10 cm and 24 cm. Find the side of rhombus.
 10. One angle of a parallelogram is 60° . Find the other angles.
 11. ABCD is a parallelogram. If $\angle A = 64^\circ$. Find angles x and y



Section – C

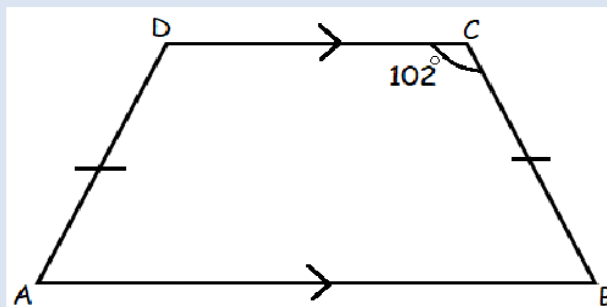
12. Diagonals AC of a rhombus ABCD bisect angle A . If $\angle DAC = 35^\circ$.
 Find all the angle of a rhombus.
 13. Convert into scientific notation : i) 9800000. ii) 0.000046
 14. Four angles of a quadrilateral are in the ratio 3 : 4 : 5 : 6. Find its angles.

Case Study Based Question

15. A student is observing different shapes in a geometry lab and notices a four-sided figure drawn on a chart. The figure has special properties related to its sides and angles. The student knows that every quadrilateral has four sides and four angles, and different quadrilaterals can be identified by their properties.

Study the given quadrilateral carefully and answer the following questions:

- i) Name the quadrilateral.
 ii) If one angle of the quadrilateral is 102° , find the other angles if $\angle C = \angle D$.
 iii) State the properties of given quadrilateral.



WORKSHEET - 2

Section - A

Choose the correct option:

16. Which of the following is the greatest 3-digit number that is a perfect square?

- a) 961 b) 972 c) 981 d) 999

17. A number ends in 3. Its cube root will end in: a) 1. b) 3 c) 7 d) 9

18. The value of 1000^0 : a) 0 b) 1000 c) 1 d) 18

Fill in the Blanks:

19. The exponential form of $-6 \times -6 \times -6$ is _____. 20. The last digit of 27^2 is _____.

Section – B

21. The volume of the cubical tank is 2197000 m^3 . Find its side.

22. Find the smallest square number which is exactly divisible by each of the numbers 4, 6, 8 and 12.

23. Find the smallest number by which 2532 be divided to get a perfect square number. Also find the square.

24. How many perfect square lies between 200 and 450?

Section – C

25. Write in numerical value: (a) $(-10)^2 \times (-2)^4 \times (3)^3$. (b) $(-7)^2 \times (-1)^{15}$

26. Write 0.00054 in expanded form.

27. What does this 0^n means ?

28. Find the cube root by successive subtraction method: 4096

29. Find cube root by finding its ones and tens digit: 421875

Case Study based Question



30. The students of Class 8 visit a new mathematics-themed escape room called “The Number Vault. “To unlock different doors, they must solve puzzles. **At the entrance, they find these clues:** A square digital floor has an area of 2401 square units. A giant storage box is made in the shape of a cube and has a volume of 4913 cubic units. A glowing number panel shows 1764. Another cube-shaped chamber has volume 2197 cubic units.

A) What is the side length of the square digital floor?

B) What is the edge length of the second cube-shaped chamber?

C) Cube root of 2197 lies between:

(i) 10 and 12 (ii) 12 and 14 (iii) 14 and 16 (iv) 16 and 18

Mathematics Portfolio Activity

Topic: Direct and Inverse Proportion with Graphs

Objective: To understand direct and inverse proportion through tables, real-life examples, and graphical representation.

Materials Required: Graph paper, Pencil and ruler, Colours/sketch pens, Notebook

Part A: Direct Proportion

Situation: The cost of notebooks depends on the number of notebooks purchased.

Complete the Table:

Number of Notebooks (x)	Total Cost (y)
1.	_____
2.	_____
3.	_____
4.	_____

Formula Used : $y = 20x$

Plot Graph for these points.

Part B: Indirect Proportion

Situation: The number of days required to complete a work depends on the number of workers.

Complete the Table:

Number of Workers (x)	Days Required (y)
1.	_____
2.	_____
3.	_____
4.	_____

Formula Used : $xy = 12$

Plot Graph for these points.

Observation Questions:

1. What type of graph is formed in direct proportion?
2. What type of graph is formed in inverse proportion?

Summer Holidays Homework

1. Selenology and Planetary Science

Task/ Model : (Best out of waste)(a) Create a Model or diorama based on "**SOLAR SYSTEM**" by using wool and balls of different sizes.

(b) Design a creative model of "**PHASES OF MOON**".

Requirements: circular cardboard disc , A plastic balls, aluminium foil and flashlight or bulb.

Outcome: Learners will be able to observe and identify some prominent planets like mars , jupiter etc.

Students will be able identify the different phases and study the motion of celestial objects in space.

2. Be an Experimentor

Dear students, Prepare 3-D model on topic as assigned you according to your **Roll nos.** The links also shared below the topic , you can take help from the links.

Task : (i) Design your own working "**Rain Water Harvesting Model**" (**Roll no. 1 to 8**)

For Reference: https://youtu.be/4ms7gzE24yo?si=Qml_51KHjj-haET_.

(ii) Make a 3-D model of "**Wind Mill Power Generation**" (**Roll no. 9 to 14**)

For Reference: https://youtu.be/NsjPYFEG9il?si=THNwEZ8eT_hGPb4P.

(iii) Prepare a 3- D Model of "**Hydraulic Bridge**". (**Roll no. 15 to 21**)

For Reference: https://youtu.be/EDD7VLgl1_c?si=ZV2GovwUQOVnnAjp.

(iv) Make a 3-D "**Solar Powered house Project**". (**Roll no.22 to 28**)

For Reference: https://youtu.be/UH1I5Yz6lXo?si=QEfK9M0j_mXCP6Mb.

(v) Prepare a 3-D model of "**Water Level Indicator**". (**Roll no. 29 to 36**)

For Reference: <https://youtu.be/ORcdS9sma5s?si=krbhvfxUSNJcaulR>.

Submission: "Students, kindly note model should be of appropriate size and best ones will receive recognition for their outstanding creativity and efforts!"

Outcomes: More conceptual clarity enables visualization of abstract concepts and develop practical skills such as a wiring and assembling the components.

3. Conservation Biology

Task/ Activity : Make a Powerpoint Presentation on any one "**Endangered Animal**". Include the information about its habitat and also Find the reasons for its falling numbers and steps taken to conserve it.

Submission: PPT should be creative and of 5 to 6 slides only.

Outcome: Learners will be able to know about how some species are in danger of disappearing.

4. Botany: Herbarium

Task : Visit a nearby garden or a plant nursery . Collect some useful plants and dry them in the folds of an old newspaper.

Submission : Paste these leaves (alleast 10) on a memory book (scrap book) and create a herbarium file.

Write the information in specific order:(a) Name of the plant

(b) Scientific name

(c) Medicinal uses

Outcome: learners will be able to identify the plant and study biodiversity.

WORKSHEET (CHEMISTRY)

Chapter - 7 Particulate Nature of Matter

- **Multiple Choice Questions (MCQs)**

1. Which of the following is true about the particles of matter?

- A) They are visible to the naked eye. B) They have empty spaces between them.
C) They are stationary. D) They repel each other at all times

2. When sugar dissolves in water, where do the sugar particles go?

- A) They float on the water surface. B) They settle at the bottom without mixing.
C) They occupy the empty spaces between the water particles.
D) They change into a completely different substance.

3. Which of these states of matter has the maximum interparticle space?

- A) Solid B) Liquid C) Gas D) All have equal spaces

4. What happens to the kinetic energy of particles when the temperature increases?

- A) It decreases B) It increases C) It remains constant D) Particles stop moving

- **Very Short Answer Questions**

1. Name the basic building blocks of all matter.

2. Why can gases be easily compressed, but solids cannot?

3. If camphor is exposed to room temperature, what change of state occurs?

4. Why does the fragrance of an incense stick spread across an entire room?

5. Compare the force of attraction between particles in solids, liquids, and gases.

- **Short answer questions**

1. Describe what happens at the particulate level when you dissolve salt in water. Why does the salt eventually become invisible?

2. A student opens a bottle of perfume in the corner of a closed room. Explain how the particulate nature of matter accounts for the spread of its smell?

3. Use the particulate model to explain why a liquid has a fixed volume but takes the shape of the container it is poured into?
4. A block of ice is heated. How do the spacing, movement, and forces of attraction between the water molecules change during this process?

WORKSHEET (BIOLOGY)

Chapter- 13. "Our Home: Earth, a Unique Life- Sustaining Planet"

- **Define the following:**

- 1.Biosphere
- 2.Habitable Zone
- 3.Greenhouse Effect
- 4.Gravity

- **Very Short Answer Type Questions**

1. Name the three main elements that make up the thin life-supporting layer of Earth.
2. Why does the Moon play a crucial role for Earth?
3. Name the gas in the atmosphere that traps heat and maintains Earth's temperature.
4. What would happen to the atmosphere if Earth had very weak gravity?

- **Short Answer Type Questions**

1. Compare Earth's temperature with that of Venus and Mars.
2. Why is Earth's atmospheric composition better suited for life?
3. Explain the dual role of Earth's atmosphere in protecting and sustaining living organisms.
4. What are the primary threats to Earth's environment today, and how do they impact the planet?

- **Long Answer Type Questions**

- 1.Describe the key conditions that make Earth a unique life-sustaining planet in the solar system.
- 2.Discuss the importance of the atmosphere and the hydrosphere in maintaining the balance of ecosystems on Earth.

Note: Worksheet should be done on notebook.

SOCIAL SCIENCE (Grade-8)

A. .Integrated Activity.

- 1.Select any two natural resources. Gather information about their availability across different parts of India.Mark them on a map. What are the types of economic activities connected with them.
- 2.On an A4 sheet ,design, a colorful poster representing one of the key values of the Indian

Constitution (eg, Justice, Liberty, Equality, and Fraternity).

B. Historical analysis project:

Analyze how Shivaji's leadership and Maratha tactics reshaped Indian politics.

Present findings with pictures, maps or timelines

C. Model Making:

Prepare one creative Model from these topics:

- Sustainable resource management/Smart city Model
- Parliament system
- Electoral System
- Factors of production

D Map work and Book Work:

Fill the following on the physical map of India:

1. Extent of Mughal Empire Under Akbar
2. Extent of Mughal empire Under Auran. 3. Delhi, Agra, Ajmer and Marwar
4. Ahom Kingdom 5. Rajput Territories. 6. Sikh Empire

Workbook: Do pg no: 47,48,52,53,57,66,70,75,76,110,111,114,121,122,125,126

ENGLISH (Grade-8)

Q1. Identify the underlined pronoun in each sentence and state its type.

- a. The book that is lying on the table is mine.
- b. This is the house where my grandparents used to live.
- c. The girl who won the first prize is my neighbour.
- d. He accidently cut himself while chopping vegetables.
- e. They decided to paint the classroom wall during the break.

Q2. Each sentence contains one incorrect pronoun usage. Find the mistake and rewrite the sentence correctly.

- a. Us students are planning a surprise party for our teacher.
- b. Everyone must bring their own water bottle to the field trip.
- c. Whom wrote this beautiful poem on the whiteboard?

Q3. You are Aarav, a student of class VIII-B at ABC Public School. You have been diagnosed with food poisoning and the doctor has advised you to take three days of complete bed rest. Write an application to your principal requesting leave of 3 days.

Q4. Your father has been transferred from Ludhiana to Delhi, and your family is moving by the end of this month. Write an application to the Principal of your school, requesting her to issue your School Leaving Certificate at the earliest so that you can secure admission in a new school.

Q5. You lost a library book, 'The Secret Garden', which was issued to you last week. The school librarian has charged you a fine of ₹200. Write an application to your Principal explaining that you are ready to replace the book with a new copy and requesting them to kindly remit the cash fine.

Q6. Complete the following sentences using appropriate relative pronouns given within the brackets.

- I have admitted the man (which/who/whom/whose) was lying injured on the road.
- I want to read all those books (that/which/who/whose) have been recommended for the Janpath award for the year 2015
- (Which/what) is the new e-mail identity of your school?
- To (who/whom) did you give my pen?
- (Who/which/whose) is your favorite colour?

NOTE: 1.Complete your activities of literature book-chapter-1 and 2, nouns of grammar.

2.All the work should be done in your English notebooks.

कक्षा- आठवीं (ग्रह कार्य- हिन्दी)

- प्रस्तुति की तरीका- स्क्रेप बुक/ प्रोजैक्ट फ़ाईल/ सुलेख के लिए नोटबुक
- प्रस्तुति के सुझाव प्रश्नों को कलरफुल बनाएं/ शीर्षक को रचनात्मक बनाएं/ इमोजी, सटीकर या छोटी डूडल आर्ट शामिल करें।
- पाठ 4-5 का पठन करें और पाठ्य पुस्तक में दिए गए अभ्यास कार्य को पूर्ण करें।
- स्वर संधि की परिभाषा और उसके भेद की व्याख्या करें।
- माँ शीर्षक पर लघु कथा लेखन कीजिए।

ਪੰਜਾਬੀ ਛੁੱਟੀਆਂ ਦਾ ਕੰਮ

- ਹਰ ਰੋਜ਼ ਇੱਕ ਪੰਨਾ ਮੁੰਦਰ ਲਿਖਾਈ ਦਾ ਅਭਿਆਸ ਕਰੋ।
- ਪੰਜਾਬੀ ਲੋਕ ਨਾਚ(ਗਿੱਧਾ, ਭੰਗੜਾ, ਕਿਕਲੀ) ਦੀਆਂ ਤਸਵੀਰਾਂ ਲਗਾ ਕੇ ਪੰਜ-ਪੰਜ ਸਤਰਾਂ ਲਿਖੋ।

3. ਦੇਸੀ ਮਹੀਨਿਆਂ ਉੱਤੇ ਚਾਰਟ ਤਿਆਰ ਕਰੋ।

4. ਸ਼ਹੀਦ ਭਗਤ ਸਿੰਘ, ਉਧਮ ਸਿੰਘ, ਕਰਤਾਰ ਸਿੰਘ ਸਰਾਭਾ ਦੀਆਂ ਤਸਵੀਰਾਂ ਚਿਪਕਾ ਕੇ ਪੰਜ-ਪੰਜ ਸਤਰਾਂ ਲਿਖੋ (ਚਾਰਟ ਉੱਤੇ)

5. ਪੋਰਟਫੋਲੀਓ ਬਣਾਓ

1 ਸਕੂਲ ਯੂਨੀਫਾਰਮ ਵਿੱਚ ਤਸਵੀਰ ਚਿਪਕਾ ਕੇ ਆਪਣਾ ਨਾਂ ਲਿਖੋ।

2. ਜਨਮ ਮਿਤੀ

3. ਜਮਾਤ ਸੈਕਸ਼ਨ

4. ਰੋਲ ਨੰਬਰ

5. ਸਕੂਲ ਦਾ ਨਾਂ

6. ਕੱਦ

7. ਸਕੂਲ ਦਾ ਦਾਖਲਾ ਨੰਬਰ

8. ਬਲੱਡ ਗਰੁੱਪ

9. ਆਧਾਰ ਕਾਰਡ

10. ਪਿਤਾ ਦਾ ਨਾਂ

11. ਮਾਤਾ ਦਾ ਨਾਮ

12. ਫੋਨ ਨੰਬਰ

13. ਪਰਿਵਾਰਕ ਮੈਂਬਰਾਂ ਦੀ ਗਿਣਤੀ

14. ਘਰ ਦਾ ਪਤਾ

15. ਮੈਂ ਇਹ ਪਸੰਦ ਨਹੀਂ ਕਰਦਾ ਹਾਂ।

16. ਮੇਰੀ ਤਾਕਤ

17. ਮੇਰੀ ਕਮਜ਼ੋਰੀ

18. ਮੇਰੀ ਮਨ ਪਸੰਦ ਖੇਡ

19. ਮੇਰਾ ਸ਼ੌਕ

20. ਮਾਤਾ ਪਿਤਾ ਬਾਰੇ

21. ਮੇਰੀ ਜ਼ਿੰਦਗੀ ਦਾ ਉਦੇਸ਼

22. ਮੈਨੂੰ ਡਰ ਲੱਗਦਾ ਹੈ

23. ਮੇਰਾ ਪੱਕਾ ਮਿੱਤਰ