

SAINIK SCHOOL CHITTORGARH
SUMMER VACATION HOLIDAY HOMEWORK

SUBJECT NAME - MATHEMATICS

CLASS & SECTION: IX

SUBJECT TEACHER NAME: AMIT KUMAR JHA

INSTRUCTIONS:

- (i) All questions are compulsory.
- (ii) Write your answers in clear and legible handwriting.

ASSIGNMENT

CHAPTER 1: NUMBER SYSTEMS

- Q 1.** Find the decimal expansions of $10/3$, $7/8$ and $1/7$.
- Q 2.** Add $2\sqrt{2} + 5\sqrt{3}$ and $\sqrt{2} - 3\sqrt{3}$.
- Q 3.** Simplify: $(\sqrt{3} + \sqrt{7})(\sqrt{3} - \sqrt{7})$.
- Q 4.** What is the value of $(256)^{0.16} \times (256)^{0.09}$?
- Q 5.** Are the square roots of all positive integers irrational? If not, give an example of the square root of a number that is a rational number.

CHAPTER 2: POLYNOMIALS

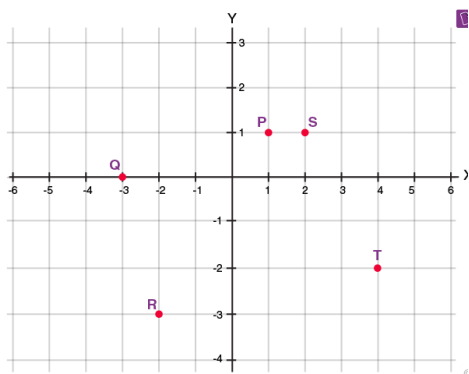
- Q 1.** Calculate the perimeter of a rectangle whose area is $25x^2 - 35x + 12$.
- Q 2.** Find the value of $x^3 + y^3 + z^3 - 3xyz$ if $x^2 + y^2 + z^2 = 83$ and $x + y + z = 15$.
- Q 3.** If $a + b + c = 15$ and $a^2 + b^2 + c^2 = 83$, find the value of $a^3 + b^3 + c^3 - 3abc$.
- Q 4.** If $(x - 1/x) = 4$, then evaluate $(x^2 + 1/x^2)$ and $(x^4 + 1/x^4)$.
- Q 5.** Find the values of a and b so that $(2x^3 + ax^2 + x + b)$ has $(x + 2)$ and $(2x - 1)$ as factors.

CHAPTER 3: COORDINATE GEOMETRY

- Q 1.** Plot the points (x, y) given in the following table on the plane, choosing suitable units of distance on the axes.

x	-2	-1	0	1	3
y	8	7	-1.25	3	-1

- Q 2.** Write the coordinates of each of the points P, Q, R, S, T and O from the figure given.



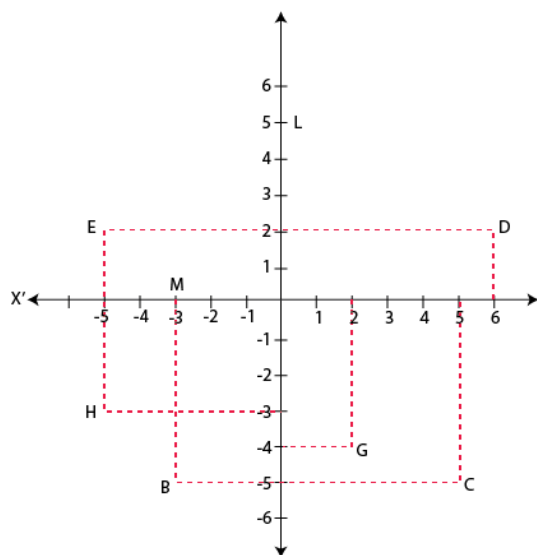
Q 3. Plot the following points and check whether they are collinear or not:

- (i) $(1, 3), (-1, -1), (-2, -3)$
- (ii) $(1, 1), (2, -3), (-1, -2)$
- (iii) $(0, 0), (2, 2), (5, 5)$

Q 4. Without plotting the points indicate the quadrant in which they will lie, if

- (i) the ordinate is 5 and abscissa is -3
- (ii) the abscissa is -5 and ordinate is -3
- (iii) the abscissa is -5 and ordinate is 3
- (iv) the ordinate is 5 and abscissa is 3

Q 5. See figure and write the following:



- (i) The coordinates of B.
- (ii) The coordinates of C.
- (iii) The point identified by the coordinates $(-3, -5)$.
- (iv) The point identified by the coordinates $(2, -4)$.

PROJECT WORK:

Spiral Square Root:

Make a beautiful picture with square root spiral.

Notebook Assignment:

Make a short notes and summary of above mentioned chapters.

Note: Kindly allocate the required number of questions.*

SAINIK SCHOOL CHITTORGARH

SUMMER VACATION HOLIDAY HOMEWORK : 2025-26

INFORMATION	
SUBJECT NAME: BIOLOGY	CLASS & SECTION: IX A, IX B, & IX C
SUBJECT TEACHER NAME: BHUPENDRA BIHARI VYAS	
INSTRUCTIONS: 1 Attempt all contents of the given chapter 2. Make a project file or a separate notebook for the same	

ASSIGNMENT
CHAPTER :AIR, WATER, & LAND POLLUTION Content 1. Introduction Content 2. Sources of Pollution Content 3. Causes Content 4. Pollutants Content 5. Harmful Effects Content 6. Diseases Associated with the Pollution Content 7. Remedial Measures Content 8. Swachh Bharat Mission

SAINIK SCHOOL CHITTORGARH

SUMMER VACATION HOLIDAY HOMEWORK

SUBJECT NAME

CLASS & SECTION: IX A, B and C

SUBJECT TEACHER NAME: GYANESHWAR SINGH

INSTRUCTIONS: USE SEPARATE NOTEBOOK FOR SUMMER VACATION HOMEWORK

ASSIGNMENT

CHAPTER 1: MATTER IN OUR SURROUNDINGS

1. Rubber band changes its shape. Is it solid?
2. What would be the effect of (i) temperature (ii) density of liquids on the rate of diffusion of liquids?
3. Why do gases exert more pressure on the walls of the container than the solids?
4. Which characteristic of a gas is used in supplying oxygen cylinders to hospitals?
5. Why do we sweat more in a humid day?
6. (i) A sponge can be compressed ,yet it is a solid? Explain.
(ii) Name the state of matter that has minimum space between particles.
7. (i) Explain the interconversion of three states of matter in terms of force of attraction and kinetic energy of the molecules.
(ii) Arrange the three states of matter in the increasing order of rate of diffusion and particle motion.
8. How do you differentiate between solids ,liquids and gases on the basis of their melting and boiling points?
9. Give reasons-
(i) Butter is generally wrapped in a wet cloth during summer if no refrigeration is available ?
(ii) When sugar crystals dissolve in water , the level of water does not rise appreciably.
10. (i) Explain the term density . Arrange different states of matter in increasing order of density.
(ii) Explain how ice floats on water?
11. When a drop of blue ink is put in water , the blue colour spreads and the whole solution becomes blue. Name the phenomenon due to which this happens.

PROJECT WORK:

SOLVE TEXT BOOK QUESTIONS OF CHAPTER 1

Note: Kindly allocate the required number of questions.*

SAINIK SCHOOL CHITTORGARH

SUMMER VACATION HOLIDAY HOMEWORK

COMPUTER SCIENCE (AI & ROBOTICS)	
CLASS & SECTION: IX – A,B & C	SUBJECT TEACHER NAME: Mr Kuldeep Malviya
<div><ul style="list-style-type: none">Complete all questions in your computer notebook.The project must be presented neatly and originally, either as a working model, poster, or digital presentation.Submit your work on the first day after vacation.Marks will be given for clarity, creativity, and understanding of the topic.</div>	
<div>CHAPTER 1: Cyber Security and Threats – Basics</div> <div><p>1: Define the following terms with examples: Cyber Security, Cyber Crime, Malware, Ransomware, and Trojan Horse.</p><p>2: Differentiate between Virus, Worm, and Spyware (any 3 points each).</p><p>3: Write short notes on:</p><div><p>(a) Phishing</p><p>(b) Denial of Service (DoS) Attack</p><p>(c) Two-Factor Authentication</p></div><p>4: Mention any five best practices for safe and secure online behavior.</p><p>5: Explain how social engineering is used to commit cybercrimes. Give two real-life examples.</p></div>	
<div>PROJECT WORK:</div> <div><p>Title: <i>Create a Cyber Security Awareness Campaign</i></p><p>Choose any one of the following formats:</p><ul style="list-style-type: none">Option 1: Design a poster/chart on the topic <i>"Say No to Cyber Threats – Stay Safe Online"</i>.Option 2: Prepare a PowerPoint/Digital Poster on any three major types of cyber threats and how to prevent them.Option 3: Write a fictitious case study (150–200 words) showing how a student fell victim to a cyberattack and how it could have been prevented.<p>Project must include:</p><ul style="list-style-type: none">Real terms and concepts learned in the chapterPreventive tipsVisual elements (drawings, printed graphics, or presentation slides)</div>	

SAINIKSCHOOLCHITTORGARH
SUMMERVACATIONHOLIDAYHOMEWORK

INFORMATION	
SUBJECTNAME: English	CLASS&SECTION: IXA,B and C
SUBJECTTEACHERNAME:JAYANTI SAXENA	
<p>INSTRUCTIONS:</p> <p>1. The holiday homework will be considered as your English project work.</p> <p>2. The marks awarded for this will be counted towards Internal –assessment.</p> <p>3. Project will be done in a file (plastic strip file with A4 sheet may also be used) Q2 and Q3.</p> <p>4 . Note-book of at least 100 pages Q1, Q4 , Q5 and Q6.</p> <p>4. On page 1: write -English Project Work, name, class, roll number, topic etc.</p> <p>ENGLISH PROJECT WORK</p> <p>NAME: _____</p> <p>CLASS: _____ SECTION _____</p> <p>SCHOOL NUMBER: _____</p> <p>HOUSE: _____</p> <p>5. Last page of the project will carry the following certificate</p> <p>CERTIFICATE</p> <p>This is to certify that I _____ OF Class _____. Have done the English project work on my own. It is my own original work as per the guidelines provided by _____(Name of the teacher).</p> <p>Signature _____</p> <p>Name: _____</p>	
ASSIGNMENT	
<p>SubjectName:English</p> <p>Reading Activity</p> <p>Q1.Read –a) The Hindu b) Watch the Wion News c) Read magazines like- Frontline</p> <p>Learn at least 10 words daily and use it in sentences of your own. Do come prepared with two hundred words and sentences written in a separate note-book of at least 100 pages.</p> <p>Creative -writing</p> <p>Q2.PORTFOLIO: PREPARE A PORTFOLIO WITH THE FOLLOWING – (Prepare a file with A4 size sheets)</p> <ul style="list-style-type: none">• Introduction (1 Page each)• My strengths (1 Page each)• I need to improve on... (1 Page each)• My achievements (1 Page each)• I have participated in... (1 Page each)• The books I have read (1 Page each)• The book I wish to read (1 Page each) <p>Q3.Write two book reviews of the books which you will read during summer vacation</p> <p>Q4..Write five descriptive paragraphs on famous personalities and monuments.</p> <p>Q5. You have just read a poem (a) The Road not Taken (a) Theme /Central Idea (b) Summary (c) Meanings of words</p> <p>Q6.. Questionnaire Making :(i)Prepare 15 multiple choice questions from the story a) The Fun They Had (b)The Lost Child</p> <p>.The deadline for submission of the above work is July 1, 2025 within the subject period.</p>	

SAINIK SCHOOL CHITTORGARH

SUMMER VACATION HOLIDAY HOMEWORK

INFORMATION	
SUBJECT NAME: PHYSICS	CLASS & SECTION: IX (A,B ,C)
SUBJECT TEACHER NAME: Mr Bhandarkar C L	
INSTRUCTIONS: Please prepare file in support of model. Use your own creativity. Marks for projects will be counted for subject enrichment internal marks.	

ASSIGNMENT
<p>CHAPTER 1: MOTION</p> <p>Content 1.</p> <p>1. Mr. Narang while going to his office first goes 5 Km towards south to drop his mother at a temple, then he turns and goes 12 Km towards east. Calculate (i) total distance covered (ii) net displacement of Mr. Narang. Mr. Narang while going to his office first goes 5 Km towards south to drop his mother at a temple, then he turns and goes 12 Km towards east. Calculate (i) total distance covered (ii) net displacement of Mr. Narang.</p> <p>2. Name the kind of motion, the following will perform: (a) A free falling stone (b) Motion performed by the moon around the sun. (c) Motion of a bullet fired from a gun (d) A ball tied to a string and whirled around in a circle over the head</p> <p>3. A train starting from rest attains a velocity of 90 km/hr in 20 minutes. If it is assumed that acceleration is uniform, find (a) its acceleration (b) distance travelled by the train for attaining this velocity.</p> <p>4. A body covers one complete revolution around a circular park of circumference 176 m in 4 minutes. Find the displacement of the body after 6 minutes.</p> <p>5. A body moves with a velocity of 2m/s for 5s then its velocity increases to 10m/s in the next 5 seconds. Thereafter its velocity begins to decrease at a uniform rate until it comes to rest after 10 seconds. (a) Plot a velocity-time graph for the motion of the body. (b) Use graph to find the distance covered by the body in last 10s.</p> <p>6. A man travels from city X to city Y and returns to city X on his motor bike. The distance between the two cities is 260 km and the man takes 4 hours 20 minutes to complete his journey. Find his average speed and average velocity in km/h</p> <p>Content 2. Prepare at least one model/project from the following (marks will be counted for internal exam.): -</p> <p>1. Prepare a model for the transformation of one form of energy into another form of energy.eg. steam from pressure cooker can be used to lighten the LED.</p> <p>2. Make a car model using Newton's III law of motion.</p> <p>3. Using Pascals law prepare the model of folding bridge.</p>

Note: Kindly allocate the required number of questions.*

SAINIK SCHOOL CHITTORGARH

SUMMER VACATION HOLIDAY HOMEWORK 2025-26

INFORMATION

SUBJECT NAME: HINDI

CLASS & SECTION: IX – A, B, C

SUBJECT TEACHER NAME: B K SINGH

INSTRUCTIONS: सभी प्रश्न अनिवार्य हैं प्रश्नों को क्रमानुसार हल करें।

ASSIGNMENT

क्षितिज भाग 1 एवं कृतिका भाग 1

प्रश्न 1. राष्ट्रीय सुरक्षा के सन्दर्भ में सेना की भूमिका पर अपने विचारों को निबंध के रूप में व्यक्त कीजिए।

प्रश्न 2. आपके पाठ्य पुस्तक में पाठ 'कबीर की साखियों' का हिंदी में संदर्भ सहित व्याख्या कीजिए।

प्रश्न 3. "ल्हासा की ओर" पाठ का सारांश संक्षेप में लिखें।

प्रश्न 4. पत्र लेखन के महत्व को बताते हुए औपचारिक पत्र और अनौपचारिक पत्रों के पाँच-पाँच नमूनों को लिखें।

प्रश्न 5. कोई एक कविता (150 शब्द) अथवा कहानी (400 शब्द) अथवा निबंध (400 शब्द) लिखिए जिसमें आपके सपनों का वर्णन हो, जो आप अपने जीवन में करना चाहते हैं।

PROJECT WORK:

प्रश्न 1. हिंदी के किन्ही 5 रचनाकारों का सचित्र जीवन परिचय एक चार्ट पेपर पर बनाएँ।

SAINIK SCHOOL CHITTORGARH

SUMMER VACATION HOLIDAY HOMEWORK

Life Skills and Value Education	
CLASS & SECTION: IX A, B,C	SUBJECT TEACHER NAME: ASHI CHAUDHARY
INSTRUCTIONS: <ol style="list-style-type: none">All work should be neatly handwritten on A4 sheets or in the assigned notebooks, unless mentioned otherwise.Submission Date: The first day after the summer vacation. No late submissions will be accepted.Be sincere creative with your work — it will be evaluated.	

ASSIGNMENT
<p>1. Group Discussion Report (Individual write-up):</p> <ul style="list-style-type: none">Hold a group discussion (family/friends) on <i>"Importance of Honesty in Daily Life"</i>.Write a one-page reflection of what was discussed. <p>2. Story Reading & Review:</p> <ul style="list-style-type: none">Read any short moral story (from books or online) and write a review mentioning:<ul style="list-style-type: none">Title and authorSummary (in your own words)What you learn

*Note**: Be honest with your work.

- Handwriting, presentation, and effort will be taken into account while evaluating.
- Enjoy your holidays, stay safe, and keep learning!

Happy holidays!