



NAND KISHORE VIDYA BHAVAN

SUMMER VACATION HOME WORK 2026 - 2027

CLASS - IX



GENERAL INSTRUCTIONS:

- Complete the homework neatly and regularly.
- Use Sharpened pencil and maintain proper spacing.
- Keep your notebook clean and well covered.
- Submit the holiday homework on time after vacation.

MATHS

1. A point lies 5 units to the right of y-axis and 3 units below x-axis. Write its coordinates.
2. Find all possible coordinates of a point:
(a) whose abscissa is 4 (b) whose ordinate is -2
3. Ravi plotted a point P (a, b).
If: (a) a is negative (b) b is positive, In which quadrant will the point lie?
4. Can a point lie:
(a) on both axes? (b) in two quadrants at the same time? Give reasons.
5. The coordinates of a point are equal and both negative. Name the quadrant.
6. A point is 4 units away from the y-axis and 7 units below the x-axis. Write all possible coordinates of the point.
7. If the coordinates of a point are (a, b), write:
(a) the coordinates after changing the sign of abscissa only.
(b) the coordinates after changing the sign of ordinate only.
(c) the coordinates after changing both signs.
8. Three points are: A (2, 3) B (2, -5) C (-4, -5) Without plotting, identify:
(a) Which two points lie on a line parallel to x-axis?
(b) Which two points lie on a line parallel to y-axis?
9. A point lies:
(a) 6 units left of y-axis (b) 8 units above x-axis
What are its coordinates? In which quadrant does it lie?
10. Can two different points have the same:
(a) abscissa? (b) ordinate? Explain with examples.

11. Assertion & Reason Questions:

- (a) Assertion (A): Every point on x-axis has ordinate zero.
Reason (R): Every point on y-axis has abscissa zero.
- (b) Assertion (A): Point (-3, -4) lies in III quadrant.
Reason (R): Both coordinates are negative.
- (c) Assertion (A): Origin lies in all four quadrants.
Reason (R): Origin is the intersection of axes.

Option:

- (1) Both A and R are true and R is correct explanation.
- (2) Both are true but R is not correct explanation.
- (3) A true, R false.
- (4) A false, R true.

12. Puzzle Based Questions:

- (1) A treasure is hidden:
(a) 5 steps right from origin
(b) 4 steps down, Find the coordinates.
- (2) A robot starts from origin:
(a) moves 3 units left
(b) then 6 units up, where is the robot now?
- (3) A point changes from (4, -2) to (-4, -2). Which axis reflection might have happened?
13. Write in the form of $\frac{p}{q}$ the following:
- (1) $0.\bar{6}$ (2) $0.4\bar{7}$ (3) $0.\overline{001}$ (4) $0.2\bar{6}$

14. Represent the real number $\sqrt{2}$, $\sqrt{3}$ and $\sqrt{5}$ on a single number line.

15. Rationalize the denominator:

(a) $\frac{1}{3-\sqrt{2}}$ (b) $\frac{1}{7-4\sqrt{3}}$

16. Simplify by using law of exponent:

(a) $\left(\frac{256}{6561}\right)^{\frac{3}{8}}$ (b) $(15625)^{\frac{1}{6}}$ (c) $\left(\frac{343}{1331}\right)^{\frac{1}{3}}$

(d) $\sqrt[8]{\frac{6561}{65536}}$ (e) $(343)^{-\frac{1}{3}}$

17. Represent $\sqrt{9.3}$ on number line.

18. Find the values of a and b in each of the following:

(a) $\frac{3+\sqrt{2}}{3-\sqrt{2}} = a + b\sqrt{2}$

(b) $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a + b\sqrt{3}$

19. If $x = (3 + \sqrt{8})$, find the value of $(x^2 + \frac{1}{x^2})$

20. Solve exercise of chapter 1 (Orienting yourself: the use of coordinates) and Chapter 3 (The world of numbers) to NCERT book in your copy.

हिंदी

पाठ्यपुस्तक आधारित गृहकार्य -

- गद्यखंड और काव्यखंड से पाठ 1,2,3 को ध्यानपूर्वक पढ़िए और आपको प्रत्येक पाठ से क्या शिक्षा मिली अपने शब्दों में लिखिए।
- सुरों की कोकिला 'लता मंगेशकर' के बारे में आप क्या जानते हैं ? उनके बारे में जानकारी प्राप्त कर लिखिए।
- अलंकार से संबंधित प्रत्येक अलंकार से 5-5 उदाहरण लिखिए।

अनुच्छेद लेखन -

किन्हीं दो विषयों पर 120 - 150 शब्दों का अनुच्छेद लिखें।

1) अनुशासन का महत्व

3) खेलों की हमारे जीवन में उपयोगिता

2) बढ़ती मंहगाई कारण एवं निवारण

4) इंटरनेट की उपयोगिता

पत्र लेखन (औपचारिक और अनौपचारिक)

अपने क्षेत्र में फैल रही गंदगी की सफाई की समस्या के समाधान के लिए नगर निगम अधिकारी को पत्र लिखिए।

या

अपने प्रिय मित्र को गर्मी की छुट्टियां गांव में बिताने के लिए पत्र लिखिए।

विचार कौशल -

- आप अपने देश भारत के विकास में कैसे योगदान दे सकते हैं ? अपने विचार प्रकट करिए।

ENGLISH

1) Prepare a project file based on compare and contrast the writing works of any two poets from your syllabus.

- Write central idea/ Theme of the Poem.
- Poetic devices of the Poem.
- Summary of the Poem.

2). Read the stories and Poems from “Kaveri” and write forty vocabulary words.

SCIENCE

Prepare an investigatory project on any one topic:

[Water pollution, Global warming, Renewable sources of energy]

Write and balance 20 chemical equations.

Draw neat labelled diagrams of:

[Plant cell, Animal cell, Human heart]

Make a chart on Types of Tissues.

Prepare short notes on:

- Laws of motion
- Newton’s laws
- Structure of atom

Revise all numericals completed in Physics and Chemistry.

Science (Biology)

Draw neat labelled diagrams of:

1. Plant cell
2. Animal cell
3. Human heart

Science (Physics)

- Read chapter Motion and make its notes.

IT

Section A – Activity Based Questions:-

Activity 1:-

Make a chart showing the applications of IT in:

Education	Healthcare
Banking	Entertainment
Business	

Activity 2:-

Collect pictures related to IT and ITeS industries and paste them in your notebook with short descriptions.

Section B– Project Work:-

Project Topic:

“Impact of Information Technology in Daily Life”

Instructions:

- Write 2–3 pages in your notebook.
- Include:
 - Introduction of IT
 - Uses of IT in different fields
 - Advantages of IT
 - Conclusion

Section C- Creative Homework:-

Make Any One:

- PPT presentation on "Uses of IT"
- Poster on "Digital India"
- Handwritten collage of IT devices and services.

Social Science

Part 1: World Map Work (Chart Paper Activity):

Objective: To understand global geography and physical features.

- **Task:** On a large chart paper, draw or outline a physical map of the world.
- **Label the following clearly:**
- **All Oceans:** Pacific, Atlantic, Indian, Arctic, and Southern Ocean.
 - **All Continents:** Asia, Africa, North America, South America, Antarctica, Europe, and Australia.
 - **Major Mountain/Hill Ranges:** The Himalayas (Asia), The Andes (South America), The Rockies (North America), The Alps (Europe), and The Great Dividing Range (Australia).
 - **Instructions:** Use different colors for land and water. Use a specific symbol (like a brown triangle) to represent mountain ranges.

Part 2: Disaster Management Project File

Objective: To study the impact and science behind natural calamities.

- **Task:** Prepare a formal Project File (on A4 sheets) covering the following two topics:

Topic A: Tsunami

- **Introduction:** Define what a Tsunami is and explain its causes (underwater earthquakes, volcanic eruptions, etc.).
- **Impact:** Describe the destruction caused by Tsunamis to life and property.
- **Safety Measures:** List "Do's and Don'ts" before and during a Tsunami.
- **Visual Requirement:** Draw or paste a diagram showing how tectonic plates shift to create Tsunami waves.

Topic B: Cyclones

- **Definition:** Explain the formation of a Cyclone and the role of low atmospheric pressure.
- **Impact:** Describe the destruction caused by cyclones to life and property.
- **Safety Measures:** List "Do's and Don'ts" before and during a cyclones.
- **Mitigation:** Explain how early warning systems save lives.
- **Visual Requirement:** Include a diagram showing the "Eye of the Cyclone" and the wind circulation pattern.

Part 3: Creative & Analytical Add-ons

- **Emergency Kit Illustration:** Draw a picture of a "Natural Disaster Emergency Kit" and list 10 essential items that should be inside it (e.g., torch, first-aid kit, dry food).
Instructions for the Project File:
- **Presentation:** Use neat handwriting. Use pictures, newspaper clippings, and hand-drawn sketches to make the file visually.

ART

1. Make the lippan art painting in cardboard.
2. Make a poster of warli art.
OR
Make a poster of madhubani art.
3. Make a flower pot.