



# L.R.S. ACADEMY

A Senior Secondary English Medium School, Nagina (Bijnor)  
(Affiliated to C.B.S.E. New Delhi)

# SUMMER HOLIDAY HOMEWORK

CLASS

IX



*Laying the foundation of excellence*



# MESSAGE FROM PRINCIPAL'S DESK

**Dear Students,**

Holidays are a wonderful opportunity to pause, relax, and rejuvenate your mind and body. It is a time to spend quality moments with your family, strengthen relationships, explore new interests, and create beautiful memories that will stay with you forever.

While you enjoy your break, I encourage you to use this time wisely. Complete your holiday homework with sincerity and creativity. It is not just an assignment, but a chance to learn, discover, and express yourself. Every small effort you put in today builds your knowledge, boosts your confidence, and prepares you for a brighter tomorrow.

**Remember, discipline today shapes your future.  
Be curious, be consistent, and always do your best.**

Read good books, stay active, observe your surroundings, learn new skills, and help your parents and elders. Take care of your health and practice kindness in your words and actions. These small habits build strong character and lead you towards a successful and meaningful life.

I look forward to welcoming you back with happy faces, refreshed minds, and renewed energy. Let us continue our journey of learning, growing, and achieving greater heights—together.

**Wishing you a joyful, safe and enriching holiday!**



Learn with curiosity.  
Work with sincerity.  
Shine with character.

**Mrs Noopur Chandra**  
Principal  
**LRS ACADEMY, NAGINA**

**Instructions to do holiday homework -:**

- 1. Take separate thin notebook for each subject cover each notebook & label properly.**
- 2. Take care of your handwriting.**
- 3. Cover the notebook properly & label it.**
- 4. school will reopen on 01/07/2026 & Holiday homework will be submitted at the same date.**
- 5. Holiday homework marks will be added in the next exam.**



# L. R. S. ACADEMY, NAGINA

HOLIDAY HOME WORK- 2026-27

Class –IX

## हिन्दी

### 1. पोर्टफोलियो निर्माण

एक सुंदर पोर्टफोलियो फाइल तैयार करें। फाइल में कम से कम 10 पृष्ठ होने चाहिए।

### 2. पाठ "क्या लिखूँ" और "संवादहीन" को ध्यानपूर्वक पढ़ें तथा पढ़ते समय आने वाले कठिन शब्दों को अपनी कॉपी में लिखें और उनके अर्थ भी लिखें।

## English

### 1. Make a tense chart (in Project File)

### 2. Project File on 'How I taught My Grandmother to Read'

Prepare a well-decorated project file covering the following topics:

Certificate

Acknowledgement

Index

Introduction

About the Author- Sudha Murthy

Character Sketch of the Grandmother and the Narrator

Values Learnt from Grandparents

Pain and Problems of Old Age

Moral / Message of the Chapter

### 3. 'Bharat Our Land' Poem Activity

Prepare the following in your project file:

Literary Devices used in the poem 'Bharat Our Land' Paste or draw suitable pictures related to the poem.

### 4. Mind Map Activity

Prepare a creative Mind Map of the chapter: The Pot Maker

Instructions

Use neat handwriting.

Decorate the project file creatively.

Add relevant pictures and colourful headings wherever required.

Submit the holiday homework after the summer vacation.

## Mathematics

Solve the following questions in file sheet paper

Q1-Express  $0.6 + 0.\bar{7} + 0.\overline{47}$  in the form  $\frac{p}{q}$ , Where p and q are integers and q not equal to 0.

Q2-Represent  $\sqrt{10.5}$  geometrically on number line.

Q3-Find 5 rational number between  $\frac{1}{6}$  and  $\frac{2}{5}$

Q4-Find x, If  $\frac{5}{6} (x + \frac{3}{5}) = \frac{5}{6}x + \frac{1}{2}$

Q5-Represent  $\frac{2}{3}, -\frac{5}{4}, 1\frac{1}{2}, \frac{17}{5}$  on the number line.

Q6-Draw the graph of the following equations, and identify their slopes and y-intercepts. Also, find the coordinates of the points where these lines cut the y-axis.

(i)  $5y = 6x - 10$  (ii)  $3y = 6x - 11$

Q7-The digits of a two-digit number differ by 3. If the digits are interchanged, and the resulting number is added to the original number, we get 143. Find both the numbers.

Q8-If you have Rs.800 and you save Rs.250 every month, find the amount you have after (i) 6 months(ii) 2 years. Express this as a linear pattern.

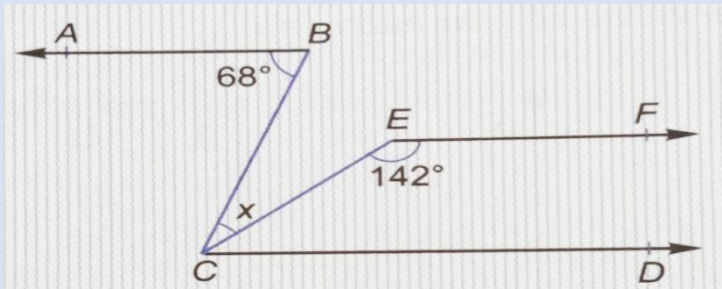
Q9-Let P, Q be points of trisection of AB, with P closer to A, and Q closer to B. Using your knowledge of how to find the coordinates of the midpoint of a segment, how would you find the coordinates of P and Q? Do this for the case when the points are A (4, 7) and B (16, -2).

Q10:-(i) Given the points A (1,8), B (-4, 7) and C (-7,-4), show that they lie on a circle K whose center is the origin O (0, 0). What is the radius of circle K?

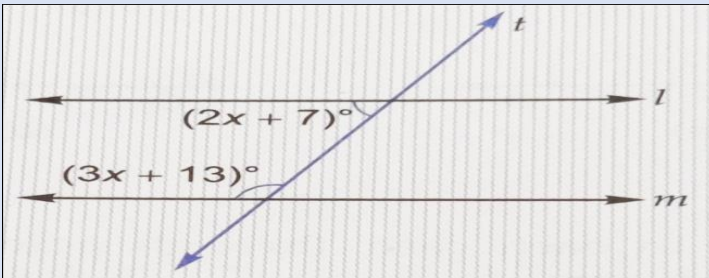
(ii) Given the points D (-5, 6) and E (0, 9), check whether D and E lie within the circle, on the circle, or outside the circle K.

Q11:- The midpoints of the sides of triangle ABC are the points D, E, and F. Given that the coordinates of D, E, and F are (5, 1), (6, 5), and (0, 3), respectively, find the coordinates of A, B and C.

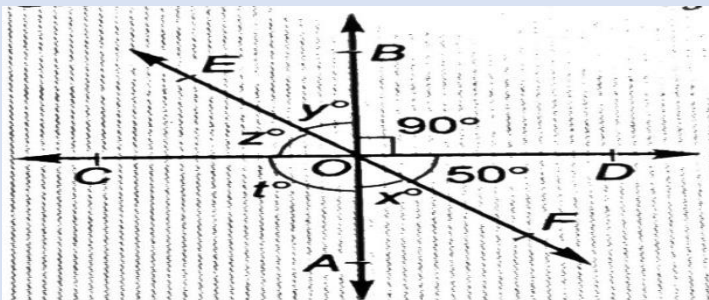
Q12:- In the given figure,  $AB \parallel CD \parallel EF$ . Find the value of x.



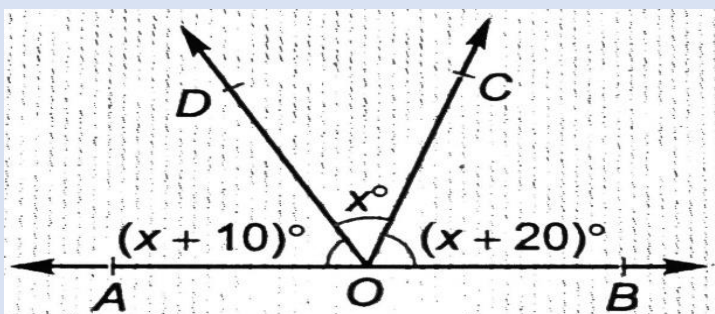
Q13:-For what value of x, will the lines l and m be parallel to each other in the given figure?



Q14:-In the given figure, three coplanar lines AB, CD and EF intersect at a point O, forming angles around O. Find the values of x,y,z and t.



Q15:--In the given figure, find x. Further find angle BOC angle COD and angle AOD.



## Biology

### Assignment

(Use only one note book for Biology, physics & chemistry work together.)

1. Draw a well labelled diagram to show the structure of mitochondria.
2. Write the significance of biological membranes of cell by taking the example of virus.
3. How are procaryotic cell and eukaryotic cell differ from each other?
4. Write the biological name of following.  
a. Human      b. Banana      c. potato      d. Rose      e. Lion      f. parrot.
5. Who discovered following.  
a. Lysosome      b. Ribosomes      c. Dead cell      d. ER.
6. Describe the fluid - mosaic model of plasma membrane along with its diagram and advantages.
7. State five functions of golgi apparatus.
8. Write two similarities and two differences between mitochondria and plastids.
9. Draw the diagram of any two unicellular organisms.
10. Differentiate between mitosis and meiosis.

## Physics

1. Draw graph for following. .  
A. Constant velocity  
B. Uniform acceleration
2. Differentiate between speed and velocity.
3. Derive 2<sup>nd</sup> equation of motion by graphical method
4. Write two examples from your daily life to represent following..  
A. Rest  
B. Motion

5. Rohan studies science from 6 PM to 7:30 PM at home. Consider the tip of the minute's hand of the wall clock. During the given time interval, what is its:  
(i) distance travelled,  
(ii) displacement,  
(iii) speed, and  
(iv) velocity.  
The length of the minute's hand is 7 cm



## Chemistry

1. If 5 g of glucose is dissolved in water to make 100 ml. of solution, calculate its concentration in mass by volume percentage.
2. Draw a well labelled diagram to represent the set up for distillation.
3. Explain the functioning of separating funnel along with diagram.
4. What is mixture? Describe its different types along with one example of each.
5. Answer the following questions with the help of the data given in Table

**Table : Solubility of various salts (in g per 100 g of water) at different temperatures**

Salts	Temperature (°C)					
	10 °C	20 °C	30 °C	40 °C	60 °C	80 °C
Potassium nitrate	21	32	45	62	106	167
Sodium chloride	36	36	36.3	36.5	37	37
Potassium chloride	35	35	37.4	40	46	54
Ammonium chloride	24	37	41	41	55	66

- (i) What mass of potassium nitrate would be needed to prepare its saturated solution in 50 g of water at 40 °C?
- (ii) A student makes a saturated solution of potassium chloride in water at 80 °C and leaves the solution to cool at room temperature (25 °C). What would she observe as the solution cools? Explain.
- (iii) What is the effect of a change in temperature on the solubility of salts? Also, compare the changes in the solubility of the four given salts with increasing temperature from 10 °C to 80 °C.

## Social Science

Interdisciplinary activity + real life activity

- Students select one type of landforms such as

Mountain

plateau or

coastal areas. ---- study how people live in the region explain with the help of illustration and state in brief their occupation settlement pattern and challenges.

- Draw or design an illustration showing the life of Egyptian civilization on A4 sheet.
- Locate and Label the state along their capitals on Indian map