Estd. 1994

SANT NISCHAL SINGH PUBLIC SCHOOL

LADWA (KURUKSHETRA)

HOLIDAY HOMEWORK

(2025-26)

CLASS - IX

SANT NISCHAL SINGH PUBLIC SCHOOL
LADWA

June Holiday's task – Class IX

English (184)

Art Integrated Work

- **Write biography of any two famous writers of Telangana with their photographs. (Roll No. 1 to 9)**
- **Make a brochure on different languages spoken in Telangana. (Roll No. 10 to 18)**
- **Make a project on mythological story of Telangana with its pictures. (Roll No. 19 to 27)**
- **Write any two folktales of Telangana with pictures. (Roll No. 28 to 37)**

- **Portfolio**

  All the students will make one English Portfolio.
  Roll No. 1 to 9 : My Childhood
  Roll No. 10 to 18 : The Road Not Taken
  Roll No. 19 to 27 : A Truly Beautiful Mind
  Roll No. 28 to 37 : On Killing A Tree
  Portfolio must have following pages
  Topic 1. My Goal
  Topic 2 .. Peer Assessment
  Topic 3 .. Self Assessment
  Topic 4 .. Target
  Topic 5 .. My Strength
  Topic 6 ..My Weakness
  Portfolio file must be neat and clean.

- **Subject Enrichment Activity**
  1. **Do the following pages of BBC in**
     - **Module 1 - Pg no. 3 , 7, 10**
     - **Module 7- Pg no. 266, 267, 268, 270, 271, 272,**
     - **Module 8- Pg no. 310 to 313**
     - **Module 9 - Listening Task 1, 2 & 3**

HINDI (085)

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- **तेलंगाना के दर्शनीय स्थलों और हरियाणा के दर्शनीय स्थलों का तुलनात्मक अध्ययन करते हुए परियोजना तैयार कीजिए**
- **डिजिटल इंडिया विषय पर एक कोलाज बनाइए।**

- **रैदास के पदों को व्याख्या सहित A4 सीट पर लिखिए।**

Mathematics (041)

- **Practice the sums of ch 1 ,2 ,3 ,4 from ncert exemplar**

Art integrated project

- **Compare population and literacy rate of Haryana and Telangana with the help of Bar chart and pie chart**

Subject enrichment Activity

WORKSHEET(to be done in register; mention question numbers properly; no need to write questions)

NUMBER SYSTEMS

1	The earth has a surface area of approximately 510 100 000 km^2. Express this in SI units (in square m). A. $5.101 \times 10^8\ m^2$ B. $5.101 \times 10^{11}\ m^2$ C. $5.101 \times 10^{14}\ m^2$ D. $5101 \times 10^{11}\ m^2$
2	(a) What would be the denominator after rationalizing $\frac{7}{5\sqrt{3}-5\sqrt{2}}$? (b) Express $\sqrt[4]{\sqrt[3]{3^2}}$ as a single exponent. Show your work
3	Express $\sqrt[4]{\sqrt[3]{2^2}}$ as a single exponent. Show your work.

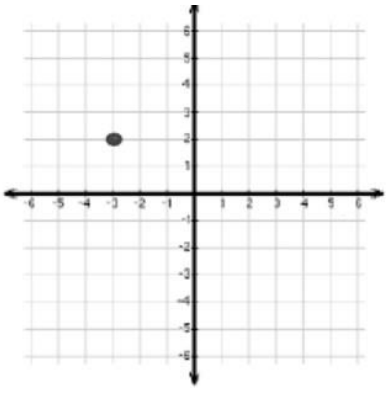
4	**Show that 1.999…… is equal to 2.**

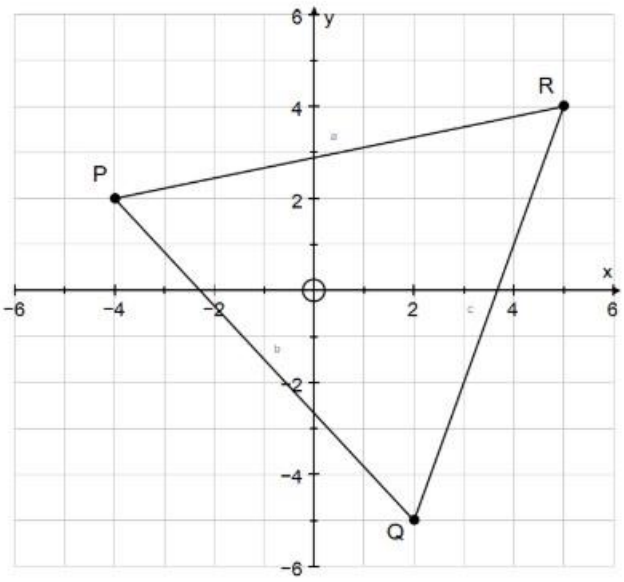
WORKSHEET ON POLYNOMIALS

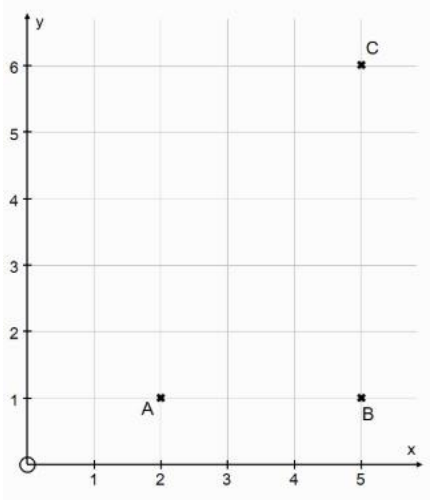
1	The area of a rectangle is $6x^2 + 5x - 6$. The possible dimensions of its length and breadth are: A. (2x-3), (3x-2) B. (2x+3), (3x-2) C. (2x-3), (3x+2) D. (2x+3), (3x+2)
2	Two students in class of IX named Ria and Ravya were assigned a polynomial by their maths teacher. The polynomial was $p(x) = x^2 - 5x + 6$. They were asked to express this polynomial as product of factors. Both applied factorisation by splitting the middle term and got different answer. Riya's answer:(x-3) (x-2) Ravya's answer: (x+3) (x-2). (a) Find out whose answer is correct and show factorisation. (b) Find the value of p (-1).
3	If $p(x) = x^3+3x^2-2x+4$, then find the value of $p(2)+p(-2)-p(0)$.
4	Two brothers Ashish and Amit wanted to start a business together. They decided to share their amount depending upon the variable expenditure. The amount of two partners is given by the expression $12x^2 + 11x - 15$., which is the product of their individual share factors. On the basis of the above information answer the following questions

	(a) Find total expenditure of Ashish and Amit when x = Rs 100. (b) Find individual share factor of Ashish and Amit in terms of x. (c) Find the value of x if their shares are equal. (d) Find the sum of their expenditure in terms of x.
5	If $x = 3 - 2\sqrt{2}$ and $y = 3 + 2\sqrt{2}$ Evaluate : $\left(x^2 - \frac{1}{x^2}\right)\left(x^2 + \frac{1}{x^2}\right)$
6	Ashima donated a certain amount of money to a blind school. Her friend Manya wanted to know the amount donated by her, but Ashima did not disclose the amount she donated, instead she gave her a hint that if $(x + \frac{1}{x})$ = Rs. 7 then the amount donated by her is Rs. $(x^3 + \frac{1}{x^3})$. Find the amount donated by Ashima to the school.

WORKSHEET ON COORDINATE GEOMETRY

1	 **According to the diagram above, the dot represents Raily's school on the city map. Marita's house is exactly at a mirror image of the school along the horizontal road represented in the diagram as the x axis. Which of the following represents the coordinates of Marita's house?**

	A. (3, 2) B. (–3, –2) C. (3, -2) D. (2, -3)
2	 Identify the coordinates of point Q. A. Q (2, 5) B. Q (-2, 5) C. Q (-2, -5) D. Q (2, -5)
3	In a Cartesian plane, what are the coordinates of a point P that is 3 units to the left of origin and 2 units below the origin? A. (3, 2) B. (-3, 2) C. (-3, -2) D. (3, -2)

4	 **Observe the above given grid and answer the following questions:** **(a) Find the sum of abscissa of coordinates of A and B.** **(b) If ABCD represents the vertices of a rectangle. Plot the point D and write its coordinates.**

WORKSHEET ON LINEAR EQUATIONS IN TWO VARIABLES

1	**The cost of book (x) exceeds twice the cost of pen (y) by 10 rupees. This statement can be expressed as linear equation as:** A. $x - 2y - 10 = 0$ B. $2x - y - 10 = 0$ C. $2x + y - 10 = 0$ D. $x - 2y + 10 = 0$
2	**Mrs. Sharma lost her purse containing Rs 50 and Rs 100 notes amounting to Rs 1500 in a market.** **(a) Represent the above situation as a linear equation in two variables.**
3	**Ravi took a cab to go to his office. The cab fare is as follows:** **For the first kilometre, the fare is Rs 50 and for the subsequent distance it is Rs 10 per kilometre.** **Take the distance covered as x km and total fare as Rs y, form a linear equation in two variables.** **If Ravi covered 7 km then how much fare he has to pay?**

4	Two brothers Ashish and Amit wanted to start a business together. They decided to share their amount depending upon the variable expenditure. The amount of two partners is given by the expression $12x^2 + 11x - 15.$, which is the product of their individual share factors. On the basis of the above information answer the following questions (a) Find total expenditure of Ashish and Amit when x = Rs 100. (b) Find individual share factor of Ashish and Amit in terms of x. (c) Find the value of x if their shares are equal. (d) Find the sum of their expenditure in terms of x.

Science (086)

- **Art Integrated Project**

Biodiversity: Telangana is home to a diverse range of flora and fauna, including many species that are unique to the region. You could create a scientific illustration that showcases some of the plants and animals found in Telangana, along with a description of their habitat and importance.

- **Subject Enrichment Activity**

Assignment 1

1. **Vishnu swims in a 90m long pool. He covers 180m in one minute by swimming from one end to the other and back along the same straight path. Find the average speed and average velocity of Vishnu.**
2. **A particle is moving in a circle of diameter 5m. Calculate the distance covered and the displacement when it competes 3 revolutions.**
3. **A body thrown vertically upwards reaches a maximum height 'h'. It then returns to ground. Calculate the distance travelled and the displacement.**
4. **A body travels a distance of 15m from A to B and then moves a distance of 20m at right angles to AB. Calculate the total distance travelled and the displacement.**
5. **An object is moving in a circle of radius 'r'. Calculate the distance and displacement (i) when it completes half the circle (ii) when it completes one full circle.**
6. **An object travels 16m in 4s and then another 16m in 2s. What is the average speed of the object?**
7. **In along distance race, the athletics were expected to take four rounds of the track such that the line of finish was same as the line of start. Suppose the length of the track was 200m.**

(a) **What is the total distance to be covered by the athletics?**

(b) **What is the displacement of the athletics when they touch the finish line?**

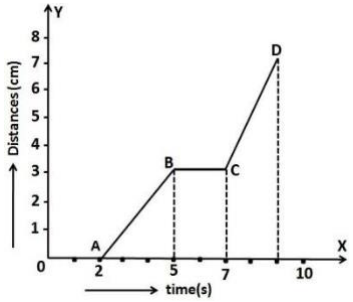
(c) **Is the motion of the athletics uniform or non-uniform?**

(d) **Is the displacement of an athletic and the distance covered by him at the end of the race equal?**

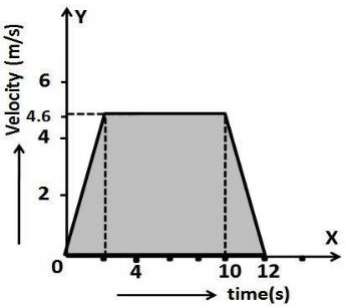
8. **Starting from a stationary position, Bhuvan paddles his bicycle to attain a velocity of 6m/s in 30s. Then he applies brakes such that the velocity of bicycle comes down to 4m/s in the next 5s. Calculate the acceleration of the bicycle in both the cases.**
9. **The odometer of a car reads 2000 km at the start of a trip and 2400km at the end of the trip. If the trip took 8 hr, calculate the average speed of the car in km/hr and m/s.**
10. **A body is moving with a velocity of 15m/s. If the motion is uniform, what will be the velocity after 10s?**
11. **A train travels some distance with a speed of 30km/hr and returns with a speed of 45km/hr. Calculate the average speed of the train.**
12. **A train 100m long moving on a straight level track passes a pole in 5s. Find**
    (a) **the speed of the train**

    (b) **the time it will take to cross a bridge 500m long.**
13. **A car travels along a straight line for first half time with speed 40km/hr and the second half time with speed 60km/hr. Find the average speed of the car.**
14. **A body starts rolling over a horizontal surface with an initial velocity of 0.5m/s. Due to friction, its velocity decreases at the rate of 0.05m/s^2. How much time will it take for the body to stop?**
15. **A car traveling at 36km/hr speeds upto 70km/hr in 5 seconds. What is its acceleration? If the same car stops in 20s, what is the retardation?**
16. **On a 120km track, a train travels the first 30 km at a uniform speed of 30 km/hr. How fast must the train travel the next 90 km so as to average 60 km/hr for the entire trip?**
17. **A train travels at 60 km/hr for 0.52 hr; at 30 km/hr for the next 0.24 hr and at 70 km/hr for the next**
    0.71 hr. What is the average speed of the train?

18..The graph in below figure shows the positions of a body at different times. Calculate the speed of the body as it moves from (i) A to B (ii) B to C and (iii) C to D.



19.The velocity time graph of an ascending passenger lift is given below. What is the acceleration of the lift: (i) during the first two seconds (ii) between 2nd and 10th second (iii) during the last two seconds.



20. A body is moving uniformly with a velocity of 5m/s. Find graphically the distance travelled by it in 5 seconds.

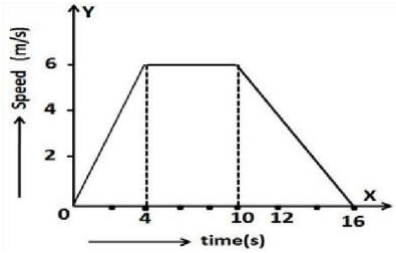
21. Study the speed-time graph of a body shown in below figure and answer the following questions: (a) What type of motion is represented by OA? (b) What type of motion is represented by AB?

(c) **What type of motion is represented by BC?**

(d) **Calculate the acceleration of the body.**

(e) **Calculate the retardation of the body.**

(f) **Calculate the distance travelled by the body from A to B.**



22. In the above question, calculate (i) distance travelled from O to A (ii) distance travelled from B to C. (iii) total distance travelled by the body in 16 sec.

23. A body is accelerating at a constant rate of 10m/s^2. If the body starts from rest, how much distance will it cover in 2 seconds?

24. An object undergoes an acceleration of 8m/s^2 starting from rest. Find the distance travelled in 1 second.

25. A moving train is brought to rest within 20 seconds by applying brakes. Find the initial velocity, if the retardation due to brakes is 2m/s^2.

26. A car accelerates uniformly from 18km/h to 36 km/h in 5 seconds. Calculate (i) acceleration and (ii) the distance covered by the car in that time.

27. A body starts to slide over a horizontal surface with an initial velocity of 0.5 m/s. Due to friction, its velocity decreases at the rate of 0.05 m/s^2. How much time will it take for the body to stop?

28. A train starting from the rest moves with a uniform acceleration of 0.2 m/s^2 for 5 minutes. Calculate the speed acquired and the distance travelled in this time.

29. A bus was moving with a speed of 54 km/h. On applying brakes, it stopped in 8 seconds. Calculate the acceleration and the distance travelled before stopping.

30. A motor cycle moving with a speed of 5 m/s is subjected to an acceleration of 0.2 m/s^2. Calculate the speed of the motor cycle after 10 seconds and the distance travelled in this time.

31. **The brakes applied to a car produce an acceleration of 6 m/s^2 in the opposite direction to the motion. If the car takes 2 seconds to stop after the application of brakes, calculate the distance it travels during this time.**

32. **A train starting from rest attains a velocity of 72 km/h in 5 minutes. Assuming that the acceleration is uniform, find (i) the acceleration and (ii) the distance travelled by the train for attaining this velocity.**

33. **Calculate the speed of the tip of second's hand of a watch of length 1.5 cm.**

34. **A cyclist goes once round a circular track of diameter 105m in 5 minutes. Calculate his speed.**

35. **A cyclist moving on a circular track of radius 50m complete revolution in 4 minutes. What is his (i) average speed (ii) average velocity in one full revolution?**

36. **The length of minutes hand of a clock in 5 cm. Calculate its speed.**

37. **A car starts from rest and moves along the x-axis with constant acceleration 5m/s2 for 8 seconds. If it then continues with constant velocity, what distance will the car cover in 12 seconds since it started from the rest?**

Assignment 2

1. **Where are chromosomes located in a cell? How are they important to us?**
2. **Give one function of RER and SER.**
3. **What will happen if the cellular organisation is destroyed due to some physical and chemical means?**
4. **Mention any two function of nucleus.**
5. **Why are lisosomes called" suicidal bags of the cell"?**
6. **(i) Why do we soak chana in water overnight? (ii) Name the phenomena involved in this process. (iii) Name another food that can be soaked in this way.**
7. **What is the similarity and dissimilarities between mitochondria and chloroplast? What will happen to a RBC when it is placed in a hypertonic solution?**
8. **Differentiate between plant and animal cell.**
9. **Give differences between ribosomes and centrosomes.**
10. **What are genes?**
11. **Differentiate between Mitosis and Meiosis.**
12. **Differentiate between Chloroplast ,Chromoplast and Leucoplast.**
13. **Write a short note on packaging cell organelle.**
14. **Draw a well labelled diagram of eukaryotic nucleus. How is it different from nucleoid?**
15. **Plant cell, in addition to the plasma membrane, have another rigid covering called the cell wall. The cell wall lies outside the plasma membrane. The plant cell wall is mainly composed of Cellulose Cellulose is a complex substance and provide structural strength to the plants. When a living plants loses water through osmosis, there is a shrinkage or contraction of the content of the cell away from the cell wall. This phenomena is known as plasmolysis.**

1.Which of the following is the main constituent of cell?

(a) Proteins (b) Lipids (c) lipoproteins (d) cellulose

2 (b) Which of the following is outermost covering of the plant cell

(a) Cell membrane (b) plasma membrane © cell wall (d) cellulose

16. **Define Plasmolysis.**
17. **Why is ATP called energy currency of the cell?**
18. **Which factor determines the shape and size of cell?**
19. **What is gene?**
20. **What is lacking in a virus which makes it depend on living cell to multiply? Give reason.**
21. **Draw a labelled diagram of a prokaryotic cell.**
22. **Which cell organelle is called power house of the cell? why**
23. **Why is Plasma Membrane called a selective permeable membrane and Cell Wall is called as fully permeable membrane?**
24. **Which cell organelle, you think, is known as "Head Quarter" of the cell and why? 3. What is the nuclear region of the prokaryotic cells called?**
25. **Where is Ribosomes synthesized? State the function of this organelle.**
26. **What will happen to an animal cell if placed in the hypertonic solution?**
27. **Name the only cell organelle seen in prokaryotic cell.**
28. **What is plasmolysis?**
29. **Why does the skin of your finger shrink when you wash clothes for a long time?**
30. **Name any three organelles with double membranes.**
31. **Name the mechanism by which substances like Carbon-di-Oxide and Water move in and out of the cell? Discuss.**
32. **Which plastid is responsible for yellow and other colours in petals of flower?**
33. **Where from a lysosome arise?**
34. **Which cell organelle synthesis lipids?**
35. **How many membranes are present in vacuole?**
36. **Name an organelle without a cell membrane.**
37. **What would happen to the life of a cell if there was no Golgi apparatus?**
38. **What do you mean by membrane biogenesis? Mention the organelle involved in it.**
39. **State one similarity and one difference between mitochondria and plastid.**
40. **Name the control room of the and show its components.**

Why cell is known as the structural and functional unit of living organisms?

Social-Science (087)

Class - IX

- **Subject Enrichment Activity**

PROJECT REPORT ON Disaster Management (Page limit 7-8)
(a) Introduction to disaster management
(b) Common Hazards -Prevention and Mitigation
(c) Man made Disaster (Nuclear,Biological and Chemical)
(d) Community planning on disaster management

- **Art Integrated Project**

Geography of Telangana–(Size & location , Physical features) Page limit (2-3)

- **Multiple Assessment**

  Make a PPT on 'Sultanpur National Park' , Gurugram. (5-6 slides)

- **Learning Task**

  Revise the following chapters :
  Economics chapter -2 (People as resource)
  Geography chapter 1,2 (India size and location , Physical features of India)
  Civics chapter -1 (What is democracy? Why democracy?)
  History chapter -1 (The French revolution)

Note: Submit your holiday's home work in a handmade file cover.
Use A4 ruled sheets and do extensive art and craft .

Information Technology(402)

Students have to make chart and write up on the given below topic according to the respective roll numbers.

Topic	Roll No.:
1. Computer Organization	(1-7)
2. Memory and Storage devices	(8-14)
3. List of Operating Systems and Web Browser	(15-21)
4. Types of Software	
5. Components of Computer System	(22-29)
	(30 onwards)

Art/Drawing

- **Draw any two landscapes (In coloured medium)**
- **Two animals, Two birds**
- **Two still life (from book)**

Note :- These all Six sheet work are to be done in your Regular drawing File. No need to Purchase extra file for above work.

Physical Education

- **Draw and write about Track**
- **Draw and Write about Field Events-**
  a) **1 Throw Event- Shot Put, Discus Throw, Hammer Throw, Javelin Throw**
  b) **1 Jump Event- Long Jump, High Jump, Triple Jump**

- **Draw and write about any one of your favourite games**
- **Draw and write about any 8 Yoga Asanas**