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

Principal's message

Dear Students,

Summer vacation is a much-awaited time for rest, reflection, and rejuvenation. It offers a wonderful opportunity to relax, explore your interests, and spend quality time with your loved ones.

However, this break also gives you the chance to continue learning beyond the classroom. Read good books, try something creative, and take up activities that help you grow as a person. The holiday homework given to you is designed not just to revise your lessons, but also to encourage independent thinking and creativity.

Make sure to balance fun with responsibility. Stay safe, take care of your health, and use your time wisely. We look forward to seeing you refreshed and recharged after the holidays.

Wishing you a joyful and productive summer break!

Warm regards,

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 01/07/2025 & Holiday homework will be summited at the same date.
5. Holiday homework marks will be added in the next exam.

हिन्दी

1. 'पोर्टफोलियो' तैयार करें। (फाइल)

2. दिए गए सभी विषयों पर एक - एक अनुच्छेद लिखिए। (कक्षा कार्य पुस्तिका में लिखिए)

   (क) मुहँतोड़ जवाब: ऑपरेशन सिंदूर।

   (ख) युवा शक्ति और देश का भविष्य।

   (ग) डिजिटल भारत की ओर बढ़ते कदम।

   (घ) बुरा जो देखन मैं चला, बुरा न मिलिया कोय।

   (ड.) महिला सशक्तिकरण।

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English

Read lesson sound of music (both part) and write about 10 musicians with drawing their musical instruments.

Revise all the topics covered up to now

Write a paragraph on the topic international yoga day.

Frame sentences (using determiners at least 5 sentences on each) articles, possessive, interrogative, demonstrative, quientifier, distributive, numbers
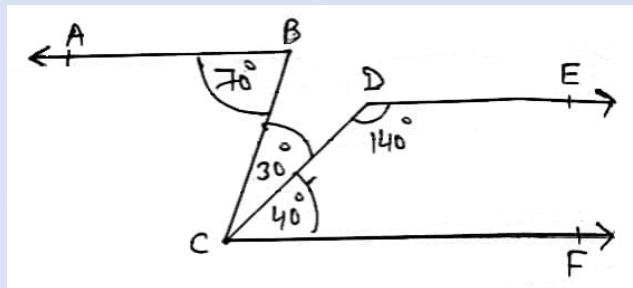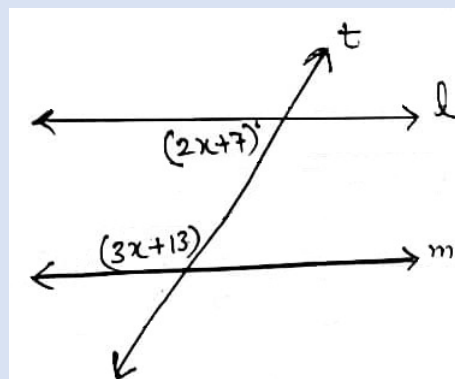
Mathematics

1. If $a = \dfrac{2-\sqrt{5}}{2+\sqrt{5}}$ and $b = \dfrac{2+\sqrt{5}}{2-\sqrt{5}}$, find $a^2 - b^2$

2. Express $0.6 + 0.\overline{7} + 0.4\overline{7}$ in the form $\dfrac{P}{q}$, where P and q are integers and $q \neq 0$.

3. Simplify: $2\sqrt[4]{81} - 8\sqrt[3]{216} + 15\sqrt[5]{32} + \sqrt{225} - \sqrt[4]{16}$.

4. Find the values of a and b if $\dfrac{7+3\sqrt{5}}{3+\sqrt{5}} - \dfrac{7-3\sqrt{5}}{3-\sqrt{5}} = a + \sqrt{5}\, b$

5. Simplify: $\dfrac{\sqrt{a+x} + \sqrt{a-x}}{\sqrt{a+x} - \sqrt{a-x}}$ and find its value when $x = \dfrac{2ab}{1+b^2}$

6. Draw the quadrilateral on a cartesian plane with vertices $(-4, 4), (-6, 0), (-4, -4)$ and $(-2, 0)$ and name the type of the quadrilateral.

7. Plot two points $P(0, -4)$ and $Q(0, 4)$ on the graph paper. Now, Plot R and S such that ΔPQR and ΔPQS are isosceles triangles.

8. Plot three points A, B and C which have same abscissa 4 but lie in I and IV quadrants and on $x - axis$ respectively. Also, plot mirror image of A in $Y - axis$.

9. Find the mirror image of the point $(-5, 6)$ along $x - axis$ and along $y - axis$.

10. In which quadrant or axis each of the following points lie?
$(-3, 5), (4, -1), (2, 0), (2, 2), (-3, -6), (0, 3)$

11. show that $AB \parallel DE$

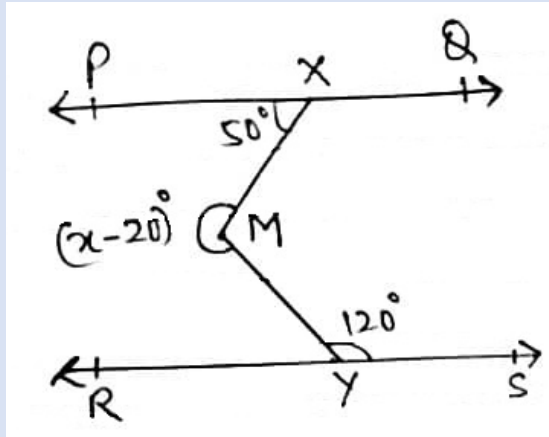12. For what value of x, will the lines l and m be parallel to each other.
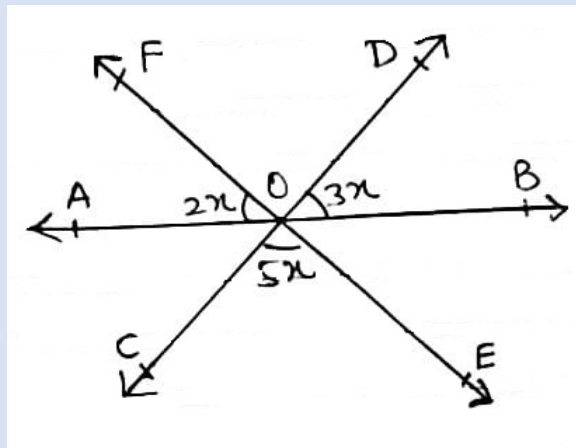

13. Two supplementary angles differ by 48^0 find the angles.

14. If $PQ\|RS$ and $\angle PXM = 50^0$ and $\angle MYS = 120^0$, Find the value of x.

15. Three coplanar lines AB, CD and EF intersect at a point 0. Find the value of x. Hence, find $\angle AOF, \angle BOD$ & $\angle COE$.

Science (Biology)

Assignment
(Use only One notebook for Biology, Physics & Chemistry work together)

Write the answer of following questions-

1. Draw a well lebelled diagram of plant cell.
2. Write the significance of biological membranes of cell by taking the example of virus.
3. How are a bacterial cell and cell of human differing from each other?
4. Write the Biological name of following-
   (i) Human   (ii) Mango   (iii) Lotus   (iv) Rose   (v) Tiger   (vi) Peacock
5. What do you understand by hypertonic solution? What happens to an animal cell if it is kept in hypertonic solution?
6. Write advantage of following-
   (i) Lysosomes in cell   (ii) Mitosis   (iii) Division of labour within the cell
7. Write the name of five unicellular organisms.
8. State five functions of endoplasmic reticulum.
9. What is plasmolysis?
10. Differentiate between cell wall and cell membrane.

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Physics

Q1 Draw the all types of s-t and v-t graph with their physical significance.

Q2 Differentiate between uniform motion and non uniform motion.

Q3 Explain how uniform circular motion is accelerated.

Q4 Differentiate between distance and displacement. Explain it by taking the example of circle.

Q5 A stone is thrown in a vertically upward direction with a velocity of 5 m/s . If the acceleration of the stone during its motion is 10 m/s² in the downward direction, what will be the height attained by the stone and how much time will it take to reach there?

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Chemistry

Q1 Draw the state conversion diagram and mention the name of each conversion state.

Q2 How does the water kept in an earthen pot (matka) become cool during summer?

Q3 What is diffusion. Explain with example.

Q4 What is sublimation. Explain it with example.

Q5 Which causes more severe burn boiling water or steam at same temperature.

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Social Science

Map work

1. Label and locate states and union territories with their capitals on India Map and paste in your notebook
2. Complete & check your progress in your notebook. (Page no. 9 Civics textbook)
3. Write 10 important History dates. (Find out from your history textbook Lesson-1)
   Project Work
4. Prepare a project in a project file on the topic "Disaster Management". (6-8 A4 size papers)