PM SHRI KV NO.1, IIT KHARAGPUR

HOLIDAY HOME WORK FOR SUMMER BREAK

CLASS - VI (MATHS) (2026-27)

CH- PATTERN IN MATHEMATICS / LINES and ANGLES

INSTRUCTIONS:

1. Attempt all questions neatly in sperate notebook or A4 pages.
2. Write answers in your own words
3. Follow proper format.
4. Maintain proper headings and presentation.
5. Submit after the holidays as per school instructions

CH-1

PATTERN IN MATHEMATICS

A Multiple Choice Questions

Choose the correct options:

1. The next number in the sequence 1, 2, 3, 4, ... is:

   (a) 3 ☐ (b) 4 ☐ (c) 5 ☐ (d) 6 ☐

2. The next number in the sequence 3, 9, 15, ... is:

   (a) 21 ☐ (b) 24 ☐ (c) 25 ☐ (d) 27 ☐

3. The next number in the sequence 2, 4, 8, 16, ... is:

(a) 24 ☐ (b) 28 ☐ (c) 30 ☐ (d) 32 ☐

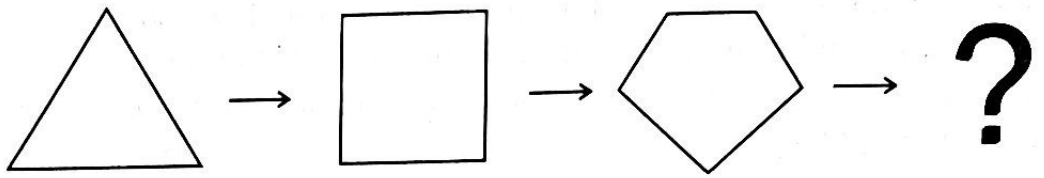
4. The next number in the sequence 1, 3, 6, 10, ... is:

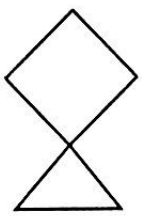
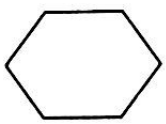
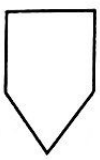
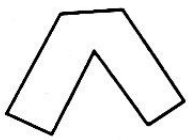
(a) 15 ☐ (b) 16 ☐ (c) 19 ☐ (d) 20 ☐

5. The next number in the sequence 1, 7, 19, 37, ... is:

(a) 43 ☐ (b) 49 ☐ (c) 55 ☐ (d) 61 ☐

6. What comes next?



(a)  ☐ (b)  ☐ (c)  ☐ (d)  ☐

7. Look at the pattern below:

$$(9 - 1) \div 8 = 1$$

$$(98 - 2) \div 8 = 12$$

$$(987 - 3) \div 8 = 123$$

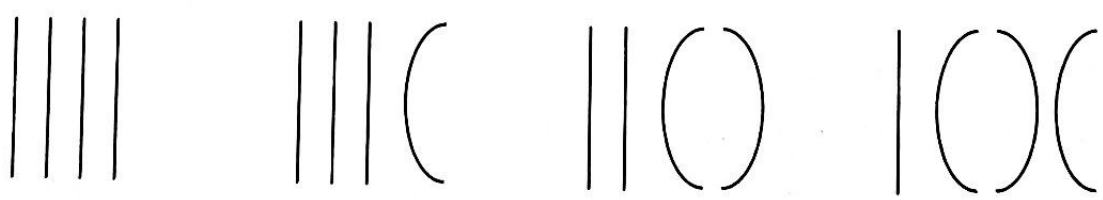
$$(9876 - 4) \div 8 = 1234$$

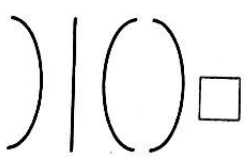
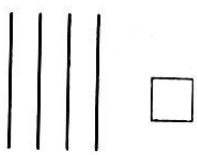
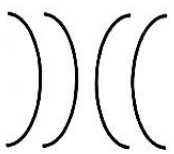
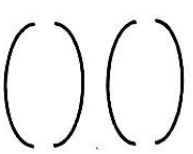
$$(98765 - 5) \div 8 = y$$

The value of y is:

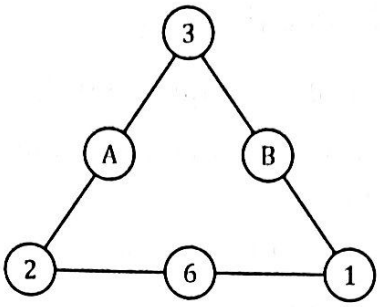
(a) 12343 ☐ (b) 12321 ☐ (c) 12345 ☐ (d) 12346 ☐

8. What comes next?



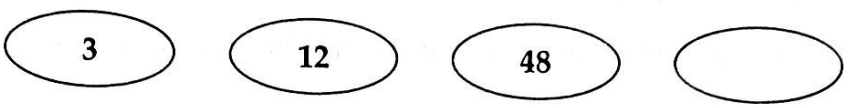
(a)  ☐ (b)  ☐ (c)  ☐ (d)  ☐

9. The values of A and B to make the equal sum on each side of this triangle are:



(a) A = 4, B = 5 ☐ (b) A = 4, B = 7 ☐ (c) A = 7, B = 5 ☐ (d) A = 5, B = 4 ☐

10. What is in the next circle?



(a) 183 ☐ (b) 186 ☐ (c) 192 ☐ (d) 198 ☐

B Write T for the True statements and F for the False statements:

1. The branch of Mathematics that studies patterns in numbers is called Number Theory. ☐
2. The next number in the sequence 1, 3, 9, 27, ... is 243. ☐
3. The sequence 1, 2, 3, 4, ... is known as Counting Numbers. ☐
4. The branch of Mathematics that studies patterns in shapes is called Geometry. ☐
5. The next number in the sequence 1, 5, 9, 13, ... is 17. ☐
6. The sequence 1, 3, 5, 7, ... is known as Even Numbers. ☐
7. The next number in the sequence 1, 2, 4, 8, ... is 16. ☐
8. The sequence 2, 4, 6, 8, ... is known as Even Numbers. ☐
9. The next number in the sequence 1, 4, 9, 16, ... is 25. ☐
10. The sequence 1, 3, 6, 10, 15, ... is known as Triangular Numbers. ☐

C Assertion-Reason Questions

Two statements are given, one labelled as Assertion (A) and the other labelled as Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.

(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

(b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).

(c) Assertion (A) is true, but Reason (R) is false.

(d) Assertion (A) is false, but Reason (R) is true.

1. **Assertion (A):** The next number of the sequence 0, 3, 8, 15, ... is 24.

   Reason (R): Difference between two consecutive numbers of the sequence 0, 3, 8, 15, ... is 3, 5, 7, ... so on. ☐

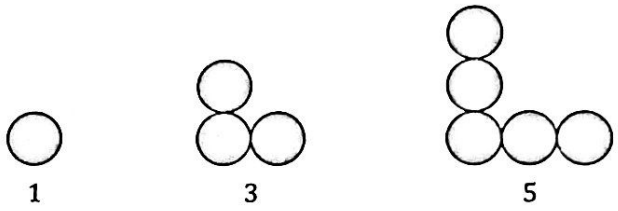
2. **Assertion (A):** The sequence 1, 3, 6, 10, 15, ... is called triangular numbers.

   Reason (R): The sequence 1, 3, 6, 10, 15, ... is represented by dots in a hexagon shape. ☐

3. **Assertion (A):** The sequence 1, 4, 9, 16, 25, ... is called square numbers.

   Reason (R): A cube number is found when we multiply a number by itself and then itself again. ☐

4. **Assertion (A):** The next number of the given sequence is 9.



   Reason (R): Difference between two consecutive numbers of the given sequence is 2. ☐

5. **Assertion (A):** The next two numbers of the sequence 7, 14, 21, 28, ... are 35 and 42.

   Reason (R): 7, 14, 21, 28, ... is the sequence of the multiple of 7. ☐

D Identify the number pattern and fill in the missing numbers:

1. 2 | 4 | 6 | 8 | ☐ | ☐

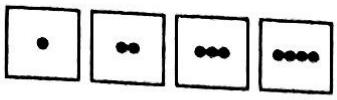
2. 3 | 6 | 9 | ☐ | ☐ | 18

3. 1 | ☐ | 5 | 7 | ☐ | 11

4. 0 | 5 | 10 | 15 | ☐ | ☐

5. 3 | 7 | ☐ | 15 | ☐ | 23

E Extend the pattern:

1.  , ..., ..., ...

2.  , ..., ...

3. $5 \times 5 = 25$

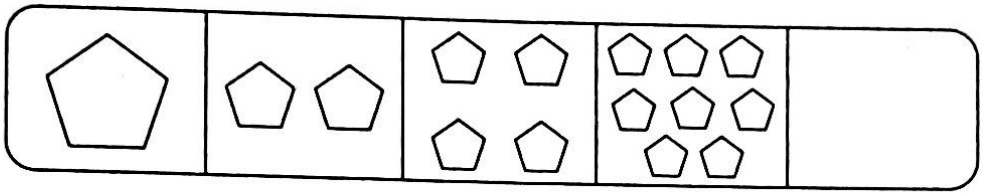
   $55 \times 5 = 275$

   $555 \times 5 = 2775$

   $5555 \times 5 =$ .....

   $55555 \times 5 =$ .....

4.  .....

5. 

F Write the rule described in the following sequences:

1. 1, 2, 3, 5, 8, 13, ...

   .....

2. 0, 2, 4, 6, 8, 10, ...

   .....

3. 1, 2, 6, 24, 120, ...

   .....

4. 1, 4, 9, 16, 25, ...

   .....

5. 6, 12, 18, 24, 30, ...

   .....

6. 3, 6, 12, 24, ...

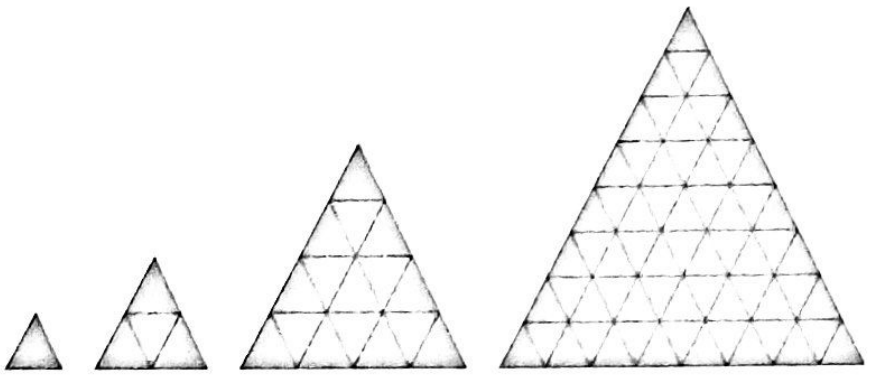
   .....

7. 160, 80, 40, 20, ...

   .....

8. 4, 9, 19, 39, ...

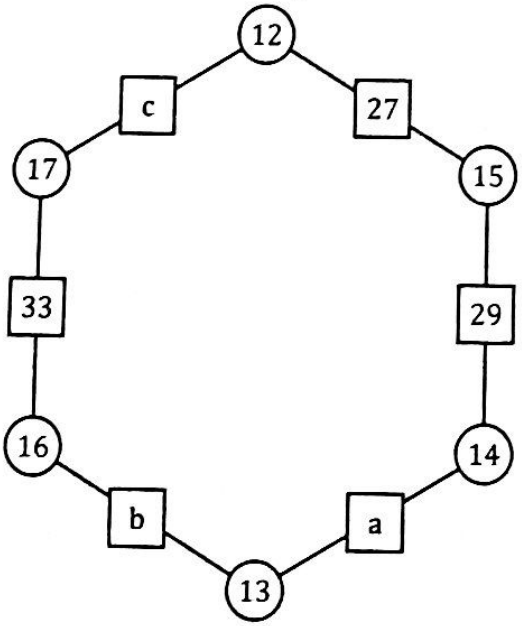
9. 21, 32, 43, 54, ...

10. 

More Practice

1. Can you recognise the pattern in the sequence 44, 35, 26, ...? If yes, write the next two numbers of this sequence.

2. Observe the pattern and find the values of a, b and c.



3. Can you recognise the pattern in the sequence 2, 9, 28, 65 ...? If yes, write the rule described in it.

4. Can you recognise the pattern in the sequence 3, 6, 11, 18, ...? If yes, write the rule described in it.

5. Can you recognise the pattern in the sequence 1, 3, 7, 15, ...? If yes, write the rule described in it. Also, write the next two numbers of this sequence.

6. Write the rule described in the sequence 3, 5, 9, 17, 33, ...

7. Write the rule described in the sequence 2, 8, 18, 32, 50, ...

8. Can you visualise the sequence 1, 4, 9, 16, 25, ...? If yes, represent this sequence pictorially.

9. Can any number be both a triangular number and a square number? Explain.

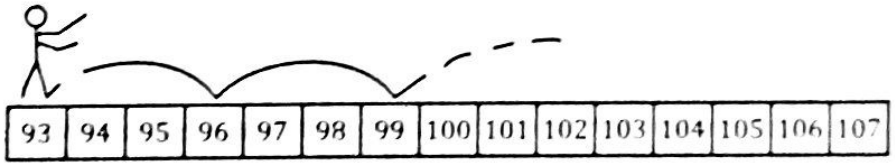
10. Can any number be both a triangular number and a cube number? Explain.

11. Write the relations among numbers in the sequence 1, 4, 9, 16, ...

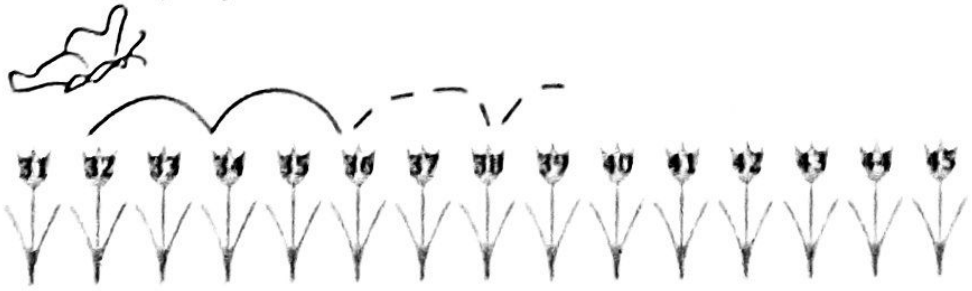
12. Which sequence do you get when you start to add even numbers up? Show your work.

Face The Challenge

1. Rohit is jumping three steps at a time. If he starts from number 93, on which number will he reach after 5 jumps?



2. Rangeeli titli is jumping 2 steps at a time. If she starts from number 32, on which number she will reach after 6 jumps?



3. What will be the next four numbers of the given sequence?

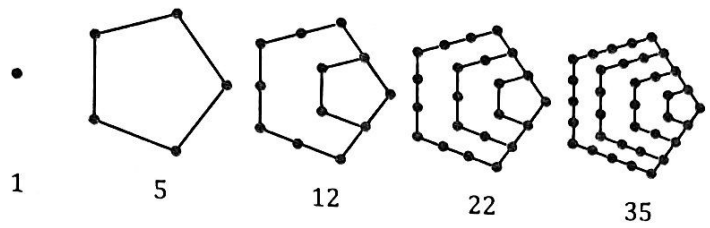
1, 5, 12, 22, 35, ...

.....

.....

4. What would you call the following sequence of numbers?

Critical Thinking Problem Solving



Write the rule which described the pattern shown in the above sequence. Also, write the next number in the sequence.

.....

.....

.....

.....

5. Ms. Monika, a math teacher decided to teach the concept of the sequence of square numbers in the following pattern:

Case Study Based Questions

$1 = 1$

$1 + 3 = 4$

$1 + 3 + 5 = 9$

$1 + 3 + 5 + 7 = 16$

$1 + 3 + 5 + 7 + 9 = 25$

So, the sequence of square numbers is 1, 4, 9, 16, 25, ...

But one of the students, Lavanya, argued that she knew another pattern to find the sequence of square numbers which is as follows:

$1 = 1$

$1 + 2 + 1 = 4$

$1 + 2 + 3 + 2 + 1 = 9$

$1 + 2 + 3 + 4 + 3 + 2 + 1 = 16$

$1 + 2 + 3 + 4 + 5 + 4 + 3 + 2 + 1 = 25$

Based on the information, answer the following questions:

(i) Who correctly explains the sequence of square numbers?

(a) Monika ☐ (b) Lavanya ☐

(c) Both of them ☐ (d) None of them ☐

(ii) Which method do you think is better? Why?

.....

.....

.....

(iii) Write the next three numbers of the given sequence.

.....

.....

(iv) Is there any another way to explain the sequence of square numbers? If yes, write it.

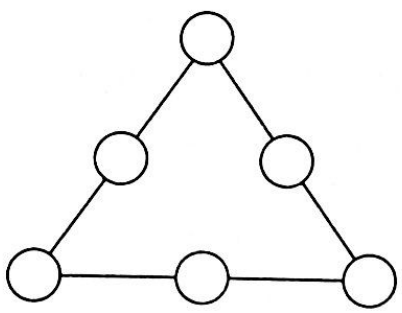
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6. Two friends, Jyoti and Isha are playing a game of magic triangle. The rules of the game are as follows:

Case Study Based Questions

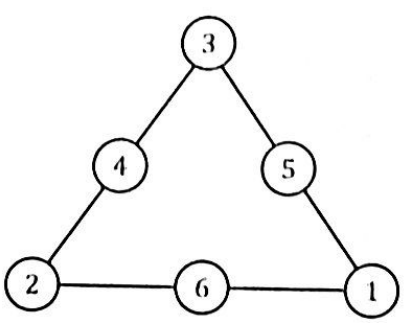


(a) Use the numbers 1, 2, 3, 4, 5 and 6.

(b) One number will be used in a circle once at a time.

(c) The sum of numbers in each line will be equal.

Using the above rule, an example of magic triangle in which the sum of numbers in each line is 9, is as follows:



Using the information, answer the following questions:

(i) Can you make a magic triangle in which the sum of numbers in each line is 10? If yes, make that magic triangle.

(ii) Make the magic triangle in which the sum of numbers in each line is 11. How many such magic triangles can be formed?

(iii) Isha said that she would make a magic triangle in which the sum of numbers in each line is 12 while Jyoti said that it is not possible to make a magic triangle in which the sum of numbers in each line is 12. Whose statement do you agree with? Give reasons.

(iv) Is there any rule for this magic triangle? Explain.

CH-2

LINES & ANGLES

A Multiple Choice Questions

Choose the correct options:

1. The number of lines passing through one point is:

   (a) 1 ☐ (b) 2 ☐ (c) 3 ☐ (d) infinite ☐

2. An angle whose measurement is ..... is known as a straight angle.

   (a) 180° ☐ (b) 90° ☐ (c) 60° ☐ (d) 30° ☐

3. Reflex angle measurement should lie between:

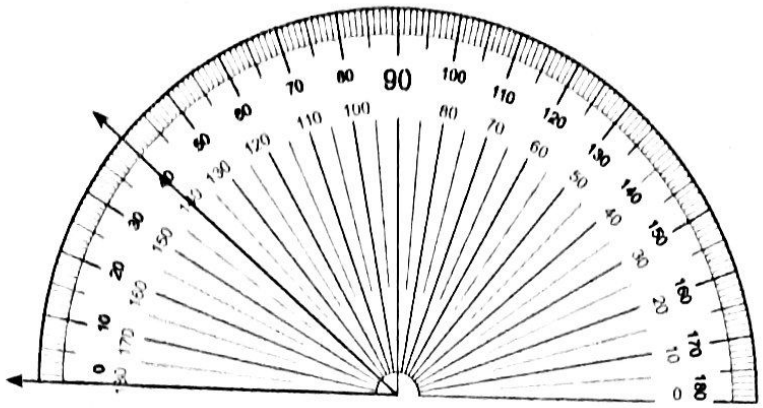
(a) 30° and 90° ☐ (b) 90° and 180° ☐

(c) 180° and 360° ☐ (d) 270° and 360° ☐

4. How many lines can be drawn through three non collinear points?

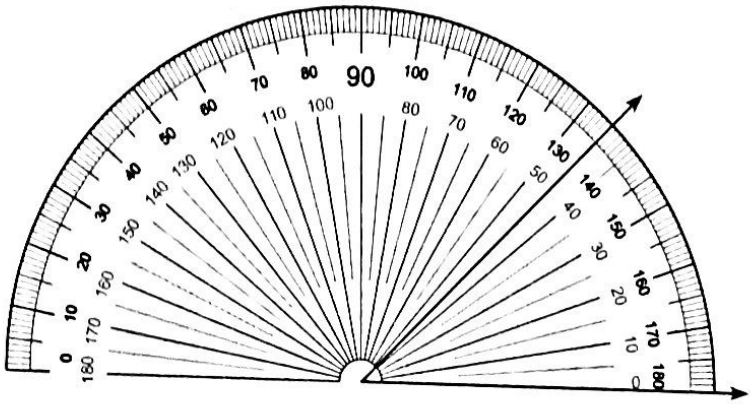
(a) 1 ☐ (b) 2 ☐ (c) 3 ☐ (d) 4 ☐

5. What is the measure of angle in the given figure?



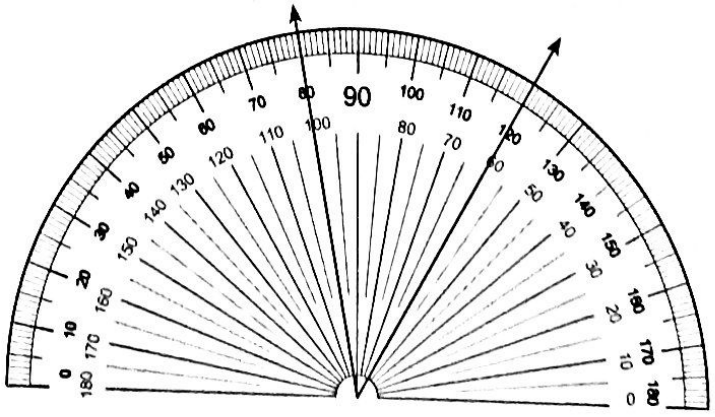
(a) 40° ☐ (b) 140° ☐ (c) 30° ☐ (d) 90° ☐

6. What is the measure of angle in the given figure?



(a) 90° ☐ (b) 135° ☐ (c) 45° ☐ (d) 55° ☐

7. What is the measure of angle in the given figure?

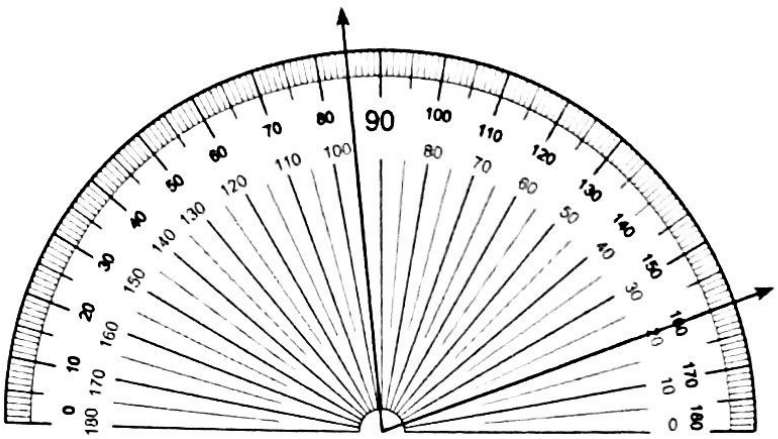


(a) 80° ☐ (b) 40° ☐ (c) 120° ☐ (d) 60° ☐

8. The hands of a clock make different angles at different times. What will be the angle at 3 o'clock?

(a) 30° ☐ (b) 60° ☐ (c) 90° ☐ (d) 180° ☐

9. What is the type of the angle?



(a) Acute ☐ (b) Right ☐ (c) Obtuse ☐ (d) Straight ☐

10. What is the correct way to measure an angle using protractor?

(a) Place the protractor's center on the vertex of the angle and align one arm with the 0° mark. ☐

(b) Place the protractor on the angle and read the numbers from the right side only. ☐

(c) Place the protractor at any point on the angle. ☐

(d) Measure the angle using inner circle only. ☐

11. What happens when you fold a piece of paper to bisect an angle?

(a) The angle is doubled. ☐

(b) The angle is divided into two equal parts. ☐

(c) The angle becomes thrice the given angle. ☐

(d) The angle becomes reflex angle. ☐

12. Which of the following angles is classified as obtuse?

(a) 80° ☐ (b) 90° ☐ (c) 120° ☐ (d) 180° ☐

13. If two angles are superimposed perfectly, what can be said about their sizes?

(a) The angles are different in size. ☐

(b) One angle is half the size of the other. ☐

(c) Sum of the angles is equal to 180°. ☐

(d) The angles are equal in size. ☐

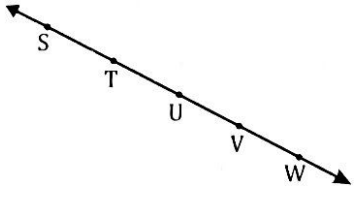
14. Which of the following angles is an example of a straight angle?
    (a) The angle formed by the hands of a clock at 6 o'clock. ☐
    (b) The angle between the blades of a scissor. ☐
    (c) The angle formed by the hands of a clock at 9 o'clock. ☐
    (d) The angle between two parallel lines. ☐

15. Why is a circle divided into 360 degrees?
    (a) Because it is a tradition from ancient civilizations. ☐
    (b) Because 360 is easy to divide by many numbers. ☐
    (c) Because it is fits the calendar of 360 days used by ancient cultures. ☐
    (d) All of the above. ☐

B Write T for the True statements and F for the False statements:

1. Interior of an angle is a restricted area. ☐
2. Line is a part of a ray. ☐
3. Line segment is a definite part of a line. ☐
4. Through a given point, only one line can be drawn. ☐
5. A ray has a fixed length. ☐
6. Angles that are greater than 0° and less than 90° are called acute angles. ☐
7. One complete angle is equal to three right angles. ☐
8. A point has no length, breadth and thickness. ☐
9. Countable number of lines can be drawn passing through a point. ☐
10. A line segment has a fixed length. ☐
11. Any two angles can be compared by placing them one over the other, i.e. by superimposition. ☐

For questions 12 to 20, carefully look at the figure given below where a line SW is drawn.



12. S, T, U, V and W are the points on the line SW. ☐

13. T, U and V are the points on the line segment SW. ☐
14. T and W are the end points of the line segment SW. ☐
15. S and V are the end points of the line segment SV. ☐
16. T is one of the end points of line segment SU. ☐
17. U is a point on the ray UW. ☐
18. Ray UW is different from the ray US. ☐
19. Ray TS is opposite to the ray TW. ☐
20. V is not the initial point of the ray VS. ☐

(C) Assertion-Reason Questions

Two statements are given, one labelled as Assertion (A) and the other labelled as Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.

(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

(b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).

(c) Assertion (A) is true, but Reason (R) is false.

(d) Assertion (A) is false, but Reason (R) is true.

1. **Assertion (A):** In $\angle PQR$, Q is the common vertex of rays QP and QR.

   Reason (R): The vertex of an angle is always included in the middle while writing the name of the angle. ☐

2. **Assertion (A):** A line contains a fixed number of points.

   Reason (R): Line extends indefinitely in both directions. ☐

3. **Assertion (A):** A line segment of length 6 cm can be constructed using a ruler only.

   Reason (R): A line segment of any length may be constructed using a protractor. ☐

4. **Assertion (A):** $68°$ is an acute angle.

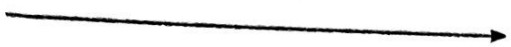
   Reason (R): Angles that are greater than $90°$ and less than $180°$ are called obtuse angles. ☐

5. **Assertion (A):** A beam of light from a lighthouse is an example of a ray.

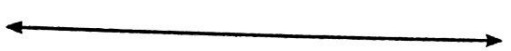
   Reason (R): A ray is a portion of a line that starts at one point and goes on endlessly in a direction. ☐

D Fill in the blanks:

1. A ..... has only one fixed point.
2. Three points are said to be ..... if a straight line segment can pass through them.
3. The below figure represents a ..... .



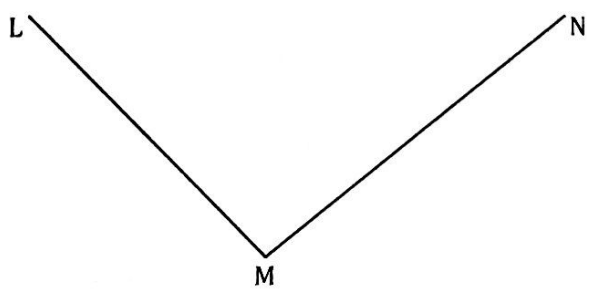
4. An angle whose measure lies between 0° and 90° is known as ..... angle.
5. An angle whose measure is ..... known as right angle.
6. One straight angle is equal to ..... right angles.
7. A line segment has ..... end points.
8. A line extent endlessly in ..... the directions.
9. The two rays that form an angle are called ..... of the angle.
10. The below figure represents a ..... .



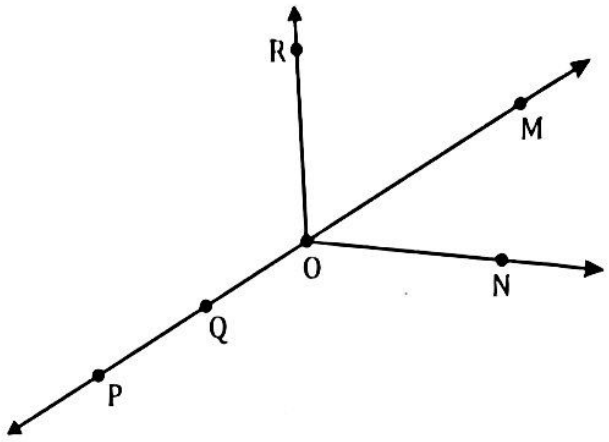
More Practice

1. With a sharp tip of a pencil, mark five points in the space given below and name these points as P, Q, R, S and T.

2. Name all the line segments in the given figure.



3. Look at the figure shown below and name the following:



(i) Four points (ii) Four line segments (iii) Three rays (iv) A line

4. In the word MATHS, mark the angles and complete the table:

S. No.	Name of angle	Number of angles
1.	Right angle	
2.	Acute angle	
3.	Obtuse angle	

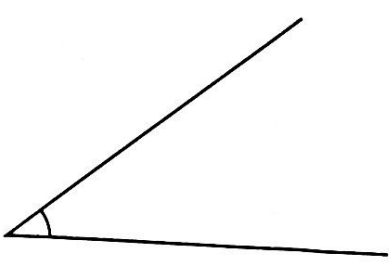
5. What type of angle is formed when the door is opened to form a perfect 'L' shape?

6. Mark suitable points and draw a diagram of each of the following:

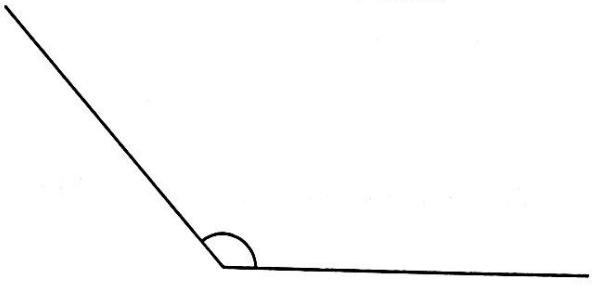
(i) A ray QP	(ii) A line XY

(iii) A line segment CD	(iv) A ray MN

7. Measures these angles using a protractor and write the measurement.



.....

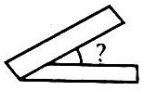


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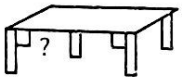
8. Draw angles of following measures and label them:

(a) 40°	(b) 120°

9. Write the names of angles made by the figures given below:



(a)



(b)

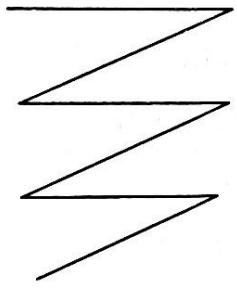


(c)

....

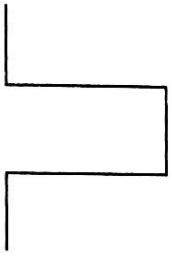
10. How many angles are formed in each of the figures given below?

(a)



.....

(b)



.....

11. Draw a right angle and label it as ∠PQR.

12. Draw an obtuse angle and label it as ∠LMN.

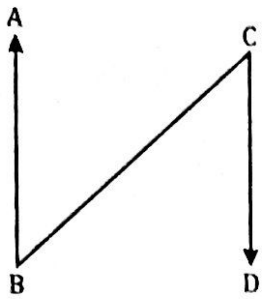
13. Draw an acute angle and label it as ∠PQR.

14. Match the following:

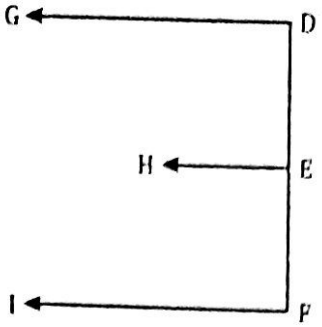
Column A	Column B
(i) A ray has	(a) have a definite length.
(ii) A line has	(b) no definite length.
(iii) A line can't	(c) only one end point.
(iv) A line segment has	(d) two end points.

15. Identify and name the line segments and rays in the following figures:

(a)

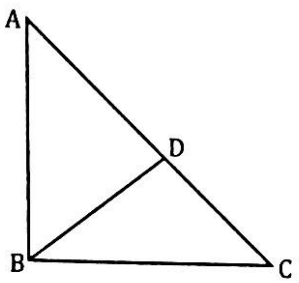


(b)



Face The Challenge

1. Look at the figure given below and answer the following questions:

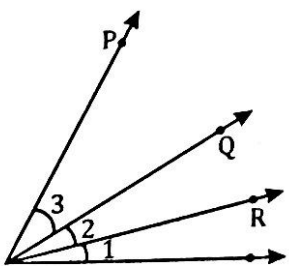


(i) How many different angles (in all) can you see in the figure?

(ii) Name all those angles.

(iii) How many angles are formed at vertex B? Write all those angles.

2. Name the following angles in the figure shown below, using three letters:

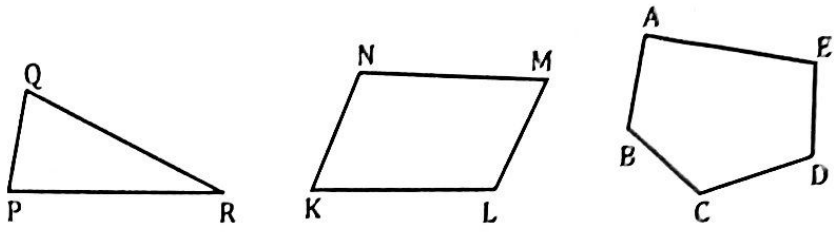


(i) $\angle 1$ = ... (ii) $\angle 2$ = ...

(iii) $\angle 3$ = ... (iv) $\angle 1 + \angle 2$ = ...

(v) $\angle 2 + \angle 3$ = ... (vi) $\angle 1 + \angle 2 + \angle 3$ = ...

3. Name the points and then the line segments in each of the following figures:



(a) (b) (c)

.....

.....

.....

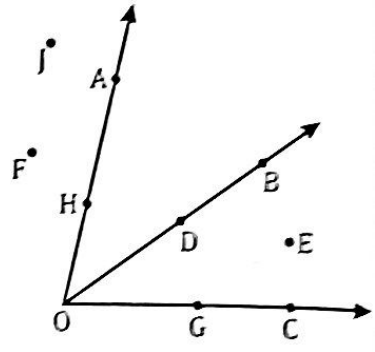
4. Look at the figure given alongside and answer the following questions:

(i) Name all the points lying in the exterior of ∠AOB.

(ii) Name all the points lying in the interior of ∠BOC.

(iii) Name all the points lying on the ∠AOC.

(iv) Name all the angles having point D.



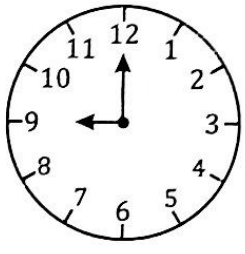
.....

.....

.....

.....

5. Look at the watch carefully and answer the following questions:



(i) The time shown by the clock is ..... .

(ii) The angle made by the hands at 9 o'clock is ..... .

(iii) If the time shown by the clock is 9:15 then the angle formed will be ..... degrees.

(iv) If it's 4 o'clock, then the angle made will be..... .

(v) Half of 180° will be ..... .

PM SHRI KENDRIYA VIDYALAYA No.1 IIT KHARAGPUR
VACATION HOLIDAY HOMEWORK CLASS- VI DATE- 06/05/202

"Maker Skills" project. This homework is designed to be hands-on, creative, and centred on the concept of how **simple machines** make our work easier.

Theme: Exploring Simple Machines through Waste and Work

Part 1: The Treasure Hunt (Observation) (1-5) Days

Identify **simple machines** (lever, pulley, wheel and axle, inclined plane, wedge, and screw) used in your home.

- **Task:** Create a table in your notebook and list at least 10 items. For each item, name the simple machine and describe how it makes your work easier (e.g., a knife is a wedge used for cutting).

Part 2: The "Maker" Project (Creativity) (6-10) Days

Using waste materials found at home (cardboard, old bottles, bottle caps, straws, rubber bands, etc.), build **one** of the following working models:

- **A Catapult or Robotic Arm:** Focusing on the use of **levers**.
- **An Elastic Band Propeller Boat:** Focusing on how a **propeller** pushes through water.
- **A Rubber Band Car or Air Balloon Car:** Focusing on the **wheel and axle** system.
- **A Working Windmill:** Using a combination of a propeller and wheel and axle.

Documentation Requirement:

1. **Sketch it:** Draw a neat diagram of your toy with accurate measurements.
2. **Instruction Manual:** Write a 5-step "How-to-Use" guide for a friend who is using your toy for the first time.

Part 3: The Bicycle Investigation (Analysis) (11-20) Days

Find a bicycle at home or in your neighborhood and explore its "complex" mechanics.

- **Task 1:** Identify and label the following simple machines on a diagram of a bicycle: **Lever** (handlebars/brakes), **Pulley** (chain rings/sprocket), and **Wheel and Axle**.
- **Task 2 (Safety Check):** Perform a basic maintenance check. Is there rust? Are the parts loose? Is the tire pressure correct? Fill out a "Bicycle Health Report" based on your findings.

Part 4: The Expert Interview (Community Interaction) (21-30) Days

Visit a local bicycle repair shop or talk to a mechanic. Ask them the following three questions and record their answers:

1. What is the best way to clean a bicycle to prevent rust?
2. How do you know when a tyre needs to be inflated?
3. How do you align a wheel that is not moving straight?

Part 5: Thinking Cap (Reflection) (31-40) Days

Answer the following in your notebook:

- **The 10-Metre Challenge:** Estimate how many times your bicycle wheel will rotate to cover a distance of 10 metres. Explain how you calculated this (Hint: think about the circumference of the tire).
- **Environment & Health:** Write a short paragraph on how using a bicycle instead of a car helps both your body and the planet.

Safety Rules for Young Makers:

- Always be careful with sharp tools like scissors and cutters.
- Ask an adult for help when using a glue gun or piercing holes in plastic.
- Clean up your workspace once you are finished.

पी एम श्री केन्द्रीय विद्यालय क्रमाङ्क- **1,**भा. प्रौ. सं., खडगपुर

ग्रीष्मावकाशगृहकार्यम् **– 2026**

कक्षा – षष्ठी विषयः – संस्कृतम्

1. प्रथमपाठ (वयं वर्णमालां पठामः) के अभ्यास पूरा करो।

2. 20 पुंल्लिङ्ग अकारान्तशब्द , 20 आकारान्तशब्द और 20 अकारान्त नपुंसकलिङ्गशब्दों का एकवचन, द्विवचन और बहुवचन में रूप लिखो। तृतीय पाठ (एषः कः एषा का एतत् किम्) के परियोजनाकार्य का प्रश्न संख्या 2 में दिए गये शब्दों का प्रयोग करें।

उदाहरण-

	एकवचनम्	द्विवचनम्	बहुवचनम्
अकारान्तपुंल्लिङ्गशब्द	बालकः	बालकौ	बालकाः
आकारान्तशब्द	छात्रा	छात्रे	छात्राः
अकारान्त नपुंसकलिङ्ग शब्द	पुस्तकम्	पुस्तके	पुस्तकानि

3. तृतीय पाठ (एषः कः एषा का एतत् किम्) के परियोजनाकार्य का प्रश्न संख्या 2 में दिए गये शब्दों का हिन्दी में अर्थ लिखो।

4. **20** क्रियापदों का एकवचन, द्विवचन और बहुवचन में रूप लिखो।

उदाहरण -

क्रियापद	एकवचनम्	द्विवचनम्	बहुवचनम्
पठ् (पढना)	पठति	पठतः	पठन्ति

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PM SHRI KENDRIYA VIDYALAYA NO.1 IIT KHARAGPUR (2026-27)

CLASS- VI C & D

SUBJECT- SCIENCE

SUMMER VACATION HOLIDAY HOMEWORK

ANSWER THE FOLLOWING QUESTIONS (TO BE DONE IN SCIENCE NOTEBOOK)

1. Give two examples from your home or neighbourhood that show the presence of air. Explain how you know air is there even though you cannot see it.
2. Compare living things and non-living things by listing two similarities and two differences. Then give three examples of each from your surroundings.
3. Why is it important to keep our surroundings clean? Write two situations where unclean surroundings can make people sick, and suggest one simple way to avoid each.
4. Your friend says, “A toy car is alive because it can move.” Explain why this statement is not correct, using at least two properties of living things.
5. Observe any plant near your house (potted plant, tree, or plant in a garden). Write down three features you notice (e.g., shape of leaves, colour, direction of growth). Then explain how these features help the plant survive.
6. Arrange the following in the correct order of the life cycle of a plant: seed, seedling, mature plant, flower, fruit. Briefly explain what happens at each stage.
7. A plant in your house is not growing well. Suggest three possible reasons (related to water, sunlight, or soil) and one simple action you can take to help it grow.
8. How are plants useful in our daily life? Give two examples from food, two examples from daily use (like furniture, paper, etc.), and one example from the environment (like clean air).
9. Why are plants and animals important for our environment? Write two uses of plants and two uses of animals.
10. Why are plants and animals important for our environment? Write two uses of plants and two uses of animals.

SUBJECT ENRICHMENT ACTIVITY (TO BE DONE IN FILE)

11. Do these on A4 sheets or in your holiday-homework notebook. You may draw or paste pictures.
    Activity 1: My Curious Record
    Go outdoors or look around your home for 10 minutes.
    Write down 5 science-based observations (e.g., water boiling, leaves rustling in wind, a fan moving, etc.).
    For each, write one short question like a scientist (for example: “Why do leaves move when the wind blows?”).
12. Activity 2: Plant Scientist at Home
    Take a small pot or empty container and plant any seed (mustard, moong, chilli, etc.).
    Water it daily and draw a Picture Diary for 1 week:
    Day 1: Empty pot/soil

Day 4–5: First leaves

Day 7: Growth

Label each picture and write 1–2 sentences describing what changed.

13. Activity 3: Living or Non-Living? collage

    Cut or draw 10 pictures (or objects) from your surroundings:

    5 living things

    5 non-living things

    Paste them on an A4 sheet and colour them.

    Under each, write 1–2 sentences explaining why it is living or non-living (use ideas like growth, movement, need food/water, etc.).

14. Activity 4: Poster for a Clean World

    Make a small poster on “Keep Your Environment Clean”.

    Include:

    Title

    3–4 simple rules (e.g., “Do not litter”, “Use dustbin”, “Plant trees”)

    1 drawing or slogan

    This helps you connect Lesson 1 ideas to real-life action.

15. Activity 5: Bird-watching journal

    Choose 10 minutes every day (morning or evening).

    Draw or write about:

    How many birds you saw,

    Colours of their feathers,

    Sounds they made, and

    Where they were (tree, wire, ground).

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Art Integrated Project (Classes VI–VIII)
Summer Holiday Homework
(KVS Art Education Split-Up Syllabus | NCERT KRITI)
Including 2D & 3D Art and Craft

OBJECTIVES:

• Integrate art with academic subjects as per KVS guidelines.

• Encourage both 2D (drawing/painting) and 3D (craft/model making) skills.

• Develop creativity, observation, and aesthetic sense.

GENERAL INSTRUCTIONS:

• Use an A4 file for 2D work and separate space for 3D models.

• Each activity must include a short description (4–5 lines).

• Use eco-friendly and low-cost materials.

• Maintain neatness and originality.

CLASS VI

Theme: My Environment & Elements of Art

2D WORK:

1. Line & Shape Composition (Nature inspired)

2. Scenery Drawing (Hill station / village scene)

3. Madhubani Fish Art

3D WORK:

1. Clay Modelling – Fruits/Vegetables or Animal Forms

2. Paper Craft – Mask Making (inspired by animals or characters)

Art Integration:

• English – Describe your artwork

• EVS – Show plants/houses in your work

CLASS VII

Theme: Composition & Folk Art

2D WORK:

1. Human Figure Drawing (activity scene)

2. Poster using warm & cool colours

3. Warli Painting

3D WORK:

1. Clay Modelling – Human figure or village scene

2. Best out of Waste Craft (use recycled materials)

Art Integration:

• Science – Water Cycle (art form)

• Social Science – Monument sketch

CLASS VIII

Theme: Creative Expression & Perspective

2D WORK:

1. Perspective Drawing (road/railway track)

2. Poster Making (India 2047 / Women Empowerment)

3. Geometric/Tessellation Design

3D WORK:

1. Model Making – Future City / Smart India (using cardboard, waste)

2. Clay Sculpture – Abstract or theme-based form

Art Integration:

• Maths – Geometry in design

• Science – AI/Future Tech Poster

ESSENTIAL NOTES FOR STUDENTS:

• Balance between 2D and 3D work is important.

• Creativity matters more than perfection.

• Use proper colour combinations.

• Prefer eco-friendly and recyclable materials.

• Plan your work and complete step-by-step.

• Avoid copying—be original.

ASSESSMENT CRITERIA:

• Creativity & originality

• Skill in 2D and 3D work

• Neatness & presentation

• Concept understanding

• Integration with subjects

SUBMISSION:

• Submit 2D work in a file.

• Submit 3D models separately (properly labelled).

• Submission after summer vacation.

PM SHRI KV NO-I IIT KHARAGPUR

English Holiday Homework

Exercise 1: Fill in the blanks (Choose the best connector)

(although, because, unless, however, therefore, while, since, even though)

1._____ he was tired, he finished his homework.
2.I didn't go to school _____ I was ill.
3.You won't succeed _____ you work hard.
4.She was late; _____, she managed to catch the train.
5._____ it was raining, they continued playing.
6.He has been absent _____ Monday.
7.I was studying _____ my brother was watching TV.
8.The roads were flooded; _____, the match was cancelled.

- ***Exercise 2: Choose the correct option***

1.I stayed home _____ it was raining.
(a) but (b) because (c) or
2.She is intelligent _____ lazy.
(a) and (b) but (c) so
3.You can have tea _____ coffee.
(a) and (b) or (c) because
4 He worked hard _____ he failed.
(a) yet (b) because (c) so
5._____ you try, you will never learn.
(a) Unless (b) Because (c) Although

- ***Exercise 3: Identify the Alliteration***

Underline the repeated sound and write it.
1.The wild winds were whispering.
2.The busy bees buzzed brightly.
3.The silent sea shimmered softly.
4.The proud peacock preened proudly.
5.The dark and dreary day dragged on.
6.The furious fox fled from the forest.
7.The golden grains glowed in the sun.
8.The lazy lion lay in the light.
9.The happy horse hopped home.
10.The tiny turtles trudged together.

Exercise 4: Write a Notice (80–100 words)

1.You are the Head Boy/Girl. Write a notice about a lost water bottle.
2.Write a notice about an inter-school quiz competition.

****Literature****

1.Short Answer Questions

1.Why did the fox start praising the raven?
2.What did the fox say about the raven's voice?
3.How did the raven react to the fox's words?
4.What happened when the raven opened its beak?

5.What did the fox do after getting the cheese?
6.“The fox said, ‘How beautiful you are! Your feathers are so shiny. I am sure your voice is sweet.’”
a.Who is speaking in this extract?
b.Whom is the fox speaking to?
c.What did the fox praise?
d Why did the fox say these words?
7.“The raven felt proud and opened its beak to sing. The cheese fell down, and the fox quickly picked it up.”
a.Why did the raven open its beak?
b.What fell down from the raven’s beak?
c.Who picked up the cheese?
d.What does this incident show about the raven?

“A Bottle of Dew”

8.What was Rama Natha’s greatest desire?
9.What did Ramanatha want to turn into gold?
10.What advice did Mahipati give to Rama Natha?
11.“He went to Mahipati, a famous sage, and asked for a magic potion that could turn things into gold.”
a.Whom did Rama Natha visit?
b.What was Mahipati known for?
c.What did Rama Natha ask for?
d.Why did he want the magic potion?
12.“Rama Natha worked hard day after day, growing crops and collecting dew drops early in the morning.”
a.What did Rama Natha start doing?
b.When did he collect dew?
c.What change came in his habits?
d.What does this show about his character?

पीएम श्री केन्द्रीय विद्यालय क्रमांक 1 भारतीय प्रौद्योगिकी संस्थान खड़गपुर

कक्षा 6 – हिंदी ग्रीष्मावकाश गृहकार्य (मल्हार आधारित)

सामान्य निर्देश:	विशेष निर्देश	मूल्यांकन आधार
साफ-सुथरी लिखावट रखें अलग कॉपी में कार्य करें रचनात्मकता का उपयोग करें	चित्र, चार्ट और रंगों का उपयोग करें प्रत्येक कार्य में तिथि अवश्य लिखें कार्य को क्रमबद्ध एवं आकर्षक बनाएं	प्रस्तुति (Presentation) रचनात्मकता (Creativity) भाषा शुद्धता (Language Accuracy) समय पर पूर्णता (Completion) प्रस्तुति (Presentation)

1. कोई भी 5 पाठ पढ़ें

प्रत्येक पाठ से 5 नए शब्द लिखें

2. लेखन कार्य

"मेरी गर्मी की छुट्टियाँ" (10 पंक्तियाँ)
"मेरा प्रिय खेल" (10 पंक्तियाँ)
5 मुहावरे लिखकर वाक्य बनाएं

3. रचनात्मक कार्य

किसी पाठ का चित्र बनाएं
चित्र देखकर 5 पंक्तियों की कहानी लिखें

4. भाषा कार्य

संज्ञा, सर्वनाम,विशेषण के 5-5 उदाहरण
5 विलोम शब्द

5. गतिविधि

एक कविता याद करें और सुनाएं

विषयाध्यापक: मनीष शर्मा
प्रशिक्षित स्नातक शिक्षक 'हिन्दी'

Curiosity Today... Discovery Tomorrow!

CLASS 6
SCIENCE (CURIOSITY)
SUMMER HOLIDAY HOMEWORK

MAY – JUNE 2026

Be Curious • Be Creative • Be a Young Scientist!

SECTION A – OBSERVATION SKILLS

1. Science Around Me

Observe your surroundings and list:

- 5 natural things
- 5 man-made things

2. Daily Observation Diary

Write daily:

- Weather conditions
- One scientific observation

SECTION B – PLANTS & LIVING WORLD

3. Plant Study

Observe a plant for 7 days.

Record:

- Growth changes
- Type of leaves
- Watering pattern

4. Living vs Non-living

List:

- 10 living things
- 10 non-living things

Write differences.

SECTION C – EXPERIMENTS

5. Simple Experiments

Perform and record:

(a) Dissolve salt/sugar in water

(b) Observe floating and sinking objects

Write:

- Observation
- Conclusion

6. Air Around Us

Prove that air occupies space.

Example:

Balloon activity

SECTION D – WATER & ENVIRONMENT

7. Water Cycle

Draw and label the water cycle.

Precipitation

Evaporation

Collection

8. Save Environment

Write 8–10 ways to protect our environment.

SECTION E – SCIENCE IN DAILY LIFE

9. Uses of Science

List the uses of science at:

- Home
- School

10. Energy Sources

List:

- Renewable sources
- Non-renewable sources

SECTION F – THINKING SKILLS

11. Reasoning Questions

Answer the following:

(a) Why do plants need sunlight?

(b) Why do objects fall down?

12. Science Quiz

Prepare 10 interesting questions from daily life science.

SECTION G – PROJECT WORK

13. Science Scrapbook

Make a science scrapbook.

Include:

- Diagrams
- Experiments
- Facts

14. Model Making

Make a simple model on any one:

- Water cycle
- Solar system

SUBMISSION GUIDELINES

- Maintain a neat and well-organized file.
- Use diagrams, colours and labels.
- Write observations clearly.
- Be honest and original in your work.
- Submit after the holidays.

EXPLORE... OBSERVE... EXPERIMENT... LEARN... GROW!

SCIENCE IS ALL AROUND US. KEEP EXPLORING!

Art Integrated Holiday Homework

Class 6 – Social Science (SST)

Theme: Understanding Our World – Space & Time

Activity 1: World Map Art

- Draw a world map and label continents and oceans.
- Mark Equator, Tropic of Cancer, Tropic of Capricorn, and Prime Meridian.
- Use different colors for each continent.

Activity 2: Globe Model

- Make a 3D globe using a ball, clay, or thermocol.
- Show latitudes and longitudes.
- Highlight India clearly.
- Write 4–5 lines explaining latitude and longitude.

Activity 3: Direction Poster

- Draw a compass rose showing directions (North, South, East, West).
- Give an example of how directions help in locating places.

Activity 4: Timeline Creation

- Create a colorful timeline including your birth year.
- Add important events from your life.
- Include ancient events like early civilizations.

Activity 5: Sources of History Collage

- Divide into Archaeological sources (coins, tools, pottery).
- Include Literary sources (manuscripts, books, inscriptions).
- Paste or draw pictures and label them.

Activity 6: Creative Activity

- Draw an archaeologist working at a site.
- OR write 5–6 lines on 'If I were an archaeologist'.