Class VI

Holidays Homework 2025-26

Assignment – Maths

Unit 1

A. Choose the correct option:

1. Find the rule of number pattern: 5, 10, 20, 40, 80

a) Multiply by 5

b) Add 10

c) Add 5

d) Multiply by 2

2. Which group of number will come in the next row?

6	24	624
7	28	728
8	32	832
?	?	?

a) 9, 81, 981

b) 9, 36, 972

c) 9, 63, 963

d) 9, 36, 936

3. What will be the next row of numbers in the following pattern?

4	16	64
6	36	216
8	64	512
?	?	?

a) 10, 500, 5000

b) 8, 68, 518

c) 10, 200, 2000

d) 10, 100, 1000

4. ABC, BCD, CDE, DEF, _____.

a) EFG   b) FGH   c) DEF   d) GHI

5. **Assertion (A):** The sequence 2, 4, 6, 8, 10 follows a pattern of even numbers.

   Reason (R): Even numbers are divisible by 2.

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

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

c) A is true but R is false.

d) A is false but R is true.

B. Fill in the blanks with suitable words:

a. Fill in the blanks: 5, 10, 20, _____, 80

b. If this pattern continues, then what is the next number?

   80, 40, 20, _____.

c. Complete the pattern : 3, 6, 9, ____, _____, 18

C. State whether each of the following statement is True or False:

1. Pattern 1,3,5,7,9 starts with 1 and follow "Add 2" rule.

a) True   b) False

2. A repeating pattern has a pattern unit that repeats over and over again.

a) True   b) False

3. In a pattern, the first number is 5. The second number is 10. The third number is 15. The fourth number is 20. If the pattern continues until the 14th number. The 14th number end in a 0 (Zero).

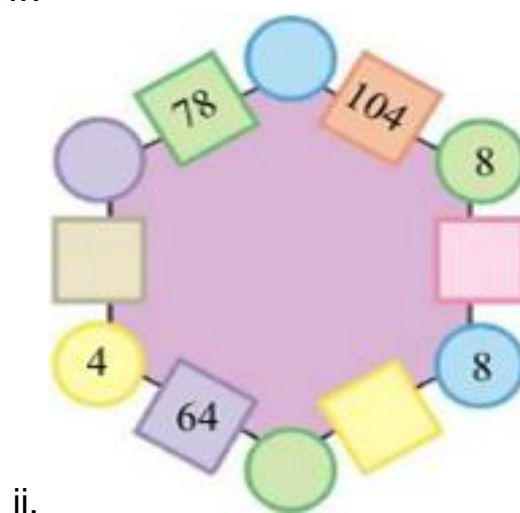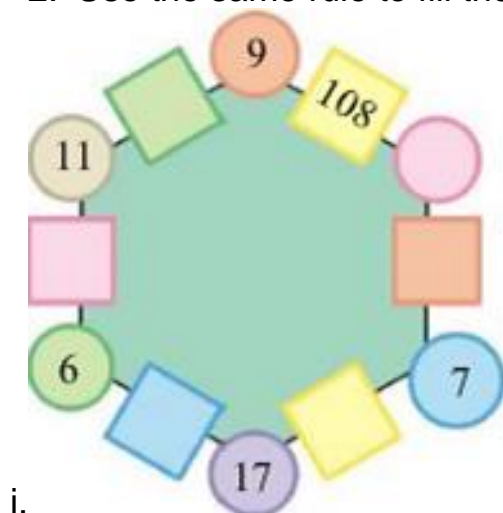a) True   b) False

D. Answer the following questions:

1. Have you ever seen a floor with tiles of these shapes?

These designs are made by covering the floor completely with tiles that fit into each other without any gaps.

2. Use the same rule to fill the hexagons below.
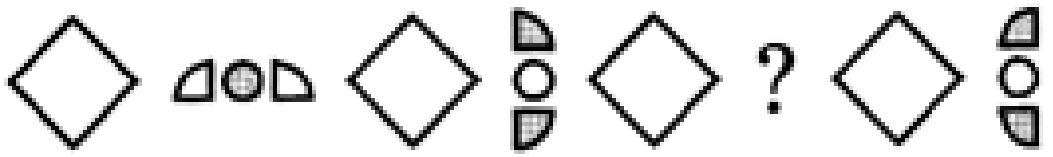

i.

ii.

E. Match the pattern rule with the sequence of number

Number Sequence	Pattern rule
1) 31, 26, 21, 16, 11, 6	a) Multiply by 3
2) 48, 51, 54, 57, 60	b) Sum of previous two numbers
3) 7, 21, 63, 189	c) Subtract 5
4) 89, 144, 233, 377	d) Add 3, then Subtract 8
5) 90, 93, 85, 88, 80, 83	e) Add 3

F. Answer the following questions:

1. Observe the following pattern and answer the following questions:

   1, 3, 6, 10, 15, ...

(a) Write the pattern rule for the given pattern.

(b) Write the next three numbers in the pattern.

2. Complete the pattern using the correct pattern.

G. Answer the following questions:

1. Examine the number pattern and answer the following questions.

   960,860,760,660.....

What rule does the pattern follows?

Next 5 numbers of patterns?

2. Janmesh has six friends, he gave 100 marbles to 1st friend, 155 marbles to 2nd friend, 210 to 3rd friend. If this pattern continues how many marbles will 4th, 5th, and 6th friend get?

H. Answer the following questions:

a. Janish spent 25 minutes on mobile on the 1st date of the month, 27 minutes on mobile on the 2nd date of the month, 29 minutes on mobile on the 3rd date of the month, 31 minutes on mobile on the 4th date of the month. If this pattern continues. then Writedown pattern and pattern rule. How much time did he spend on mobile on the 5th date of the month? How much time did he spend on mobile on the 6th date of the month?

b. A teacher distributing Paper with the number written on it to students. A teacher gave a card with number 3 on it to student 1, a card with the number 6 on it to student 2, a card with the number 9 on it to student 3, a card with the number 12 on it to student 4. If this pattern continues then which number cards the teacher gave to the student 48th, 49th, 50th & 51th student.

I. **Read the following text carefully and answer the questions that follow:**

In a game, players receive cards numbered sequentially from 1 to 10. The cards with odd numbers (1, 3, 5, 7, 9) are red, while those with even numbers (2, 4, 6, 8, 10) are blue. This color-coding system helps distinguish between odd and even-numbered cards, adding a visual element to the gameplay. The sequence of numbers on the cards is straightforward, ranging from 1 to 10, ensuring clarity and simplicity for the players.

(a) What is the color of the card with the number 7?

(b) How many even numbers are there between 1 and 10?

(c) List all the odd numbers between 1 and 10.
(d) Explain why the number 10 is an even number.

Unit 2

A. Choose the correct option:

1. What is a line segment?

[A]. A part of a line with two endpoints.

[B]. A line that extends indefinitely in both directions.

[C]. A portion of a line that starts at a point and goes in one direction.

[D]. None of the above.

2. What is the degree measure of a straight angle?

[A]. 90°   [B]. 180°   [C]. 360°   [D]. 0°

3. Which of the following is an example of a ray?

[A]. A closed loop

[B]. A beam of light from a lighthouse

[C]. A line with two endpoints

[D]. A straight angle

4. Which angle is larger?

[A]. Acute angle

[B]. Right angle

[C]. Obtuse angle

[D]. Reflex angle

5. A protractor is used to

[A]. Draw circles

[B]. Measure line segments

[C]. Measure angles in degrees

[D]. Fold paper into halves

6. What is the common endpoint of two rays called?

[A]. Line segment [B]. Vertex   [C]. Angle   [D]. Base

7. What is the degree measure of a full rotation?

[A]. 90°   [B]. 180°   [C]. 360°   [D]. 270°

8. A reflex angle is

[A]. Greater than 180° but less than 360°

[B]. Equal to 90°

[C]. Less than 90°

[D]. Exactly 180°Exactly 180°

9. How many right angles make a straight angle?

[A]. 1   [B]. 2   [C]. 3   [D]. 4

10. A line can be extended

[A]. In one direction only

[B]. Between two fixed points

[C]. Indefinitely in both directions

[D]. Only to the left

11.   Assertion (A): Two lines that never meet are called parallel lines.

Reason (R): Parallel lines are always the same distance apart.

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

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

c) A is true but R is false.

d) A is false but R is true.

B. State whether each of the following statement is True or False:

1. There are two parallel lines in the given figure?

a) True   b) False

a. An angle measure of 90° is also called a zero angle.
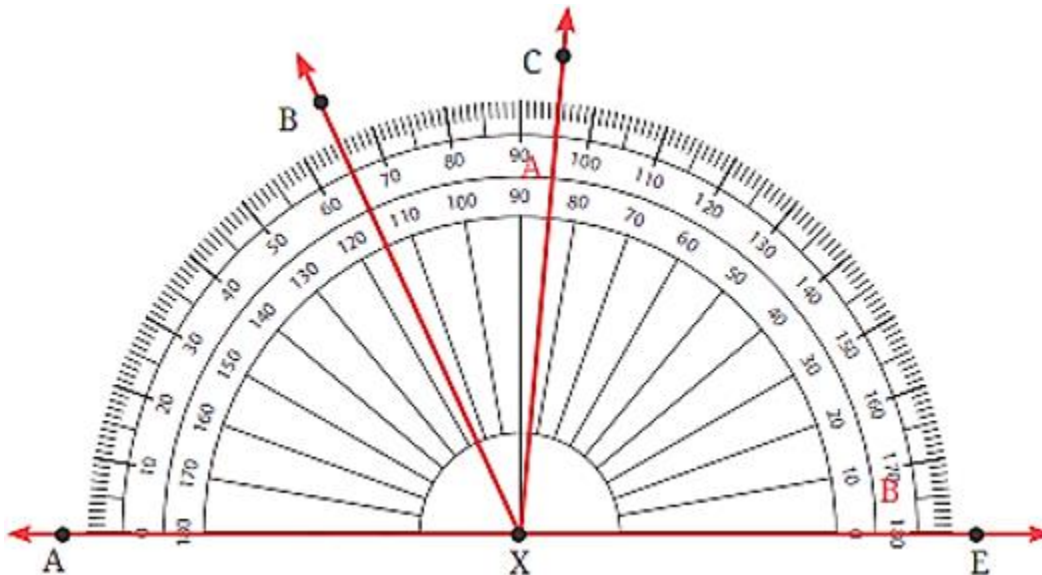
a) True   b) False

b. Protractor is an instrument for measuring or constructing an angle of a given

   measure.

a) True   b) False

C. Answer the following questions:

1. Find the degree measures of ∠BXE,∠CXE,∠AXB and ∠BXC.

2. How many rays can be drawn through a fixed point O?

3. Here is a toy with slanting slabs attached to its sides; the greater the angles or slopes of the slabs, the faster the balls roll. Can angles be used to describe the slopes of the slabs? What are the arms of each angle? Which arm is visible and which is not?

D. Read the following text carefully and answer the questions that follow:

The Ashoka Chakra on the Indian flag has 24 spokes. Each spoke is equally spaced, forming equal angles between them. Ravi wants to calculate the angle between two adjacent spokes. Since a circle has 360 degrees, dividing it by 24 spokes gives 15 degrees between each spoke. Ravi calculates that the angle between two adjacent spokes is 15 degrees. This helps him understand the symmetry of the Ashoka Chakra.

(a) How many degrees are in a full circle?

(b) What is the angle between two adjacent spokes of the Ashoka Chakra?

(c) Calculate the angle between two spokes that are 5 spokes apart.

(d) If the Ashoka Chakra had 12 spokes instead of 24, what would be the angle between two adjacent spokes?