B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL

PERIODIC TEST-1 (2025-26)
MATHEMATICS
MARKING SCHEME

Class: VI   **Time: 1 hr.**
Date: 01.07.25   **Max Marks: 25**
Admission no: **Roll no:**

Section A

Choose the correct answer: **1 x 5 = 5**

1. $1 + 3 + 5 + \underline{\quad} + 9 + 11$
   (a) 10   (b) 6   (c) 7   (d) 8

2. A _____ polygon is a shape with all sides and angles equal.
   (a) regular   (b) side   (c) line   (d) irregular

3. _____ numbers can be represented as dots forming a perfect square.
   (a) triangular   (b) hexagonal   (c) square   (d) none of these

4. An angle of exactly 90° is called a _____ angle.
   (a) straight   (b) acute   (c) Obtuse   (d) right

5. A line segment has _____ endpoints.
   (a) no   (b) two   (c) one   (d) three

Section B

Do as directed   **2 x 4 = 8**

6. The number 36 can be both a square number and a triangular number. Make picture and illustrate.

   36 as triangular number   36 as square number

7. If you add up the first 6 odd numbers, what square number do you get?
   36
   The sum of the first 6 odd numbers (1, 3, 5, 7, 9, 11) is 36, which is a square number $(6)^2$.

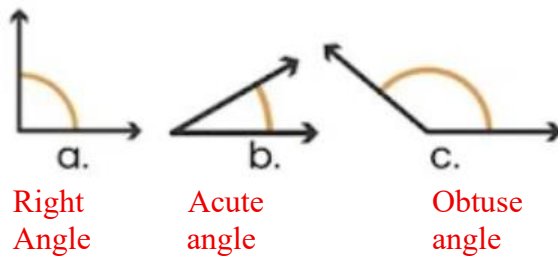8. What is the measure of an angle that is three times the measure of a right angle?

   270°
   A right angle is 90°.
   So, three times the right angle

$3 \times 90° = 270°$

9. Identify the type of angles and name them.

a. Right Angle

b. Acute angle

c. Obtuse angle

Section C

Solve the following   **3 x 4 = 12**

10. Riya is stacking books in a pyramid shape. The first row has 1 book, the second has 3, the third has 6. If she continues this pattern, how many books will be in the fifth row?
    The books in each row follow a pattern:
    1st row: 1
    2nd row: $1 + 2 = 3$
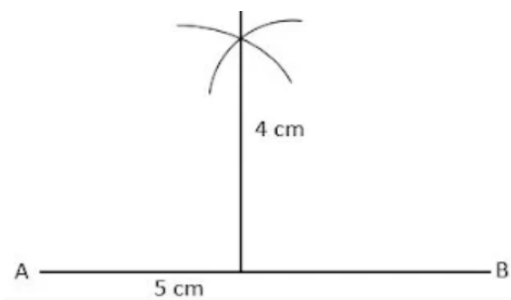   3rd row: $1 + 2 + 3 = 6$
    4th row: $1 + 2 + 3 + 4 = 10$
    5th row: $1 + 2 + 3 + 4 + 5 = 15$

11. Draw a line segment of 5 cm. At its midpoint, draw a perpendicular line segment of 4 cm. What type of angle is formed between the two line segments?
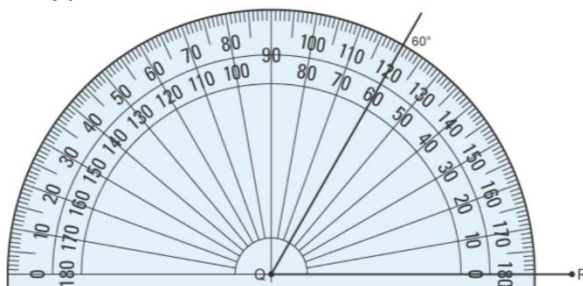   Right angle (90°)
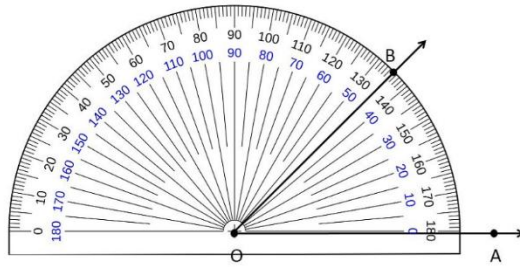   A perpendicular line forms a right angle with the original line segment.
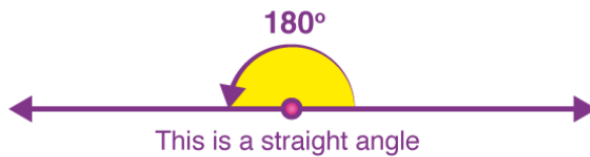

12. Draw angles with the following degree measures:
    a. 60°

b.   45°

c.   c. 180°

180°

This is a straight angle

13. Identify the patterns and write the next three numbers to complete the given patterns.
(a) 1, 3, 6, 10, 15, ….., …., ….
(b) 1, 4, 9, 16, 25, …, …, ….
(c) 1, 8, 27, 64, 125, …, …, ….

(a) The given pattern is as follows:
1, 1 + 2 = 3, 1 + 2 + 3 = 6, 1 + 2 + 3 + 4 = 10, 1 + 2 + 3 + 4 + 5 = 15; a pattern of triangular numbers. Therefore, the next three numbers of this pattern are:
1 + 2 + 3 + 4 + 5 + 6 = 21,
1 + 2 + 3 + 4 + 5 + 6 + 7 = 28,
1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 = 36.

(b)The given pattern is as follows:
$1 \times 1 = 1$, $2 \times 2 = 4$, $3 \times 3 = 9$, $4 \times 4 = 16$, $5 \times 5 = 25$; a pattern of square numbers. Therefore, the next three numbers of this pattern are: $6 \times 6 = 36$, $7 \times 7 = 49$, $8 \times 8 = 64$.

(c)The given pattern is as follows:
$1 \times 1 \times 1 = 1$, $2 \times 2 \times 2 = 8$, $3 \times 3 \times 3 = 27$, $4 \times 4 \times 4 = 64$, $5 \times 5 \times 5 = 125$; a pattern of cubes.
Therefore, the next three numbers of this pattern are: $6 \times 6 \times 6 = 216$, $7 \times 7 \times 7 = 343$, $8 \times 8 \times 8 = 512$.

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