

BCM SCHOOL, BASANT AVENUE, DUGRI, LUDHIANA.
AUGUST ASSIGNMENT
CLASS - VIII (MATHEMATICS)
TOPICS: QUADRILATERALS AND NUMBER PLAY

SECTION –A (MULTIPLE CHOICE QUESTIONS)

1. If a number is divisible by both 9 and 4, then it must be divisible by
 (a) 18. (b) 12 (c) 36 (d) 24
2. Which of the following expressions always represents an even number?
 (a) $3n+1$ (b) $4n$ (c) $5n+3$ (d) $7n+5$
3. Assertion (A): All the parallelograms are rectangles.
 Reason(R): All the rhombuses are parallelogram
 (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.

SECTION – B(2 MARKS QUESTIONS)

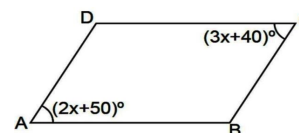
4. If $21y5$ is a multiple of 9, where y is a digit, what is the value of y?
5. Construct a square with a diagonal of length 5cm.

SECTION – C (3 MARKS QUESTIONS)

6. Find the smallest number that leaves remainder 2 when divided by 3 and remainder 3 when divided by 5
7. One angle of a quadrilateral is 120° and the remaining three angles are equal. Find the measure of each of the three equal angles.

SECTION – D (5 MARKS QUESTIONS)

8. ABCD is a parallelogram where $m\angle A = (2x + 50^\circ)$ and $m\angle C = (3x + 40^\circ)$.
 (i) Find the value of x
 (ii) Find the measure of each angle.



9. Find out whether 52844 is divisible by 11 by using the divisibility rule test. Also find its remainder.

SECTION – E (CASE STUDY)

10. A renowned flooring company is developing designer tiles shaped as special quadrilaterals. One new tile design has four equal-length sides, and when measured, its diagonals intersect at right angles but differ in length. The company's production engineer must classify this shape correctly for consistency in manufacturing and cataloging.
 By using the above, give the answers of the following questions:
 (a) What is the name of this quadrilateral?
 (b) Mention any two properties of this shape.
 (c) Could this tile be a square? Why or why not?
 (d) Name another quadrilateral with perpendicular diagonals and unequal side lengths.