

PM SHRI KV NO. 2 AFS SRINAGAR
HOLIDAY HOMEWORK (WINTER BREAK)
Subject- Mathematics
Class-VIII B

: Quadrilaterals

A. Fill in the blanks

The sum of all interior angles of a quadrilateral is _____.

A quadrilateral whose opposite sides are parallel is called a _____.

A parallelogram with all sides equal is a _____.

A quadrilateral with one pair of parallel sides is called a _____.

B. Solve the following

Find the missing angle of a quadrilateral whose three angles are 95° , 110° , and 75° .

In a parallelogram ABCD, $\angle A = 70^\circ$. Find $\angle C$ and $\angle B$.

A rectangle has length 15 cm and diagonal 17 cm. Find its breadth.

Draw any quadrilateral ABCD. Measure all its interior angles and verify that their sum is 360° .

C. Answer the following

State any three properties of a parallelogram.

How is a rhombus different from a square?

Explain why every square is a rectangle but every rectangle is not a square.

Chapter 2: Number Play

A. Number Puzzles

Using digits 1, 2, 3, 4, form:

the largest 4-digit number

the smallest 4-digit number

the largest even number you can form

the smallest odd number you can form

A number is divisible by 9 and ends with digit 7.

Find the smallest such number greater than 400.

Find a 3-digit palindrome divisible by 11.

B. Word Problems

The sum of two numbers is 84 and their difference is 12. Find the numbers.

A number is such that when you reverse its digits, it becomes 27 more. Find the number.

 Chapter 3: We Distribute Yet the Things Multiply

(Distributive Property & Algebraic Identities)

A. Apply the Distributive Property

14×103

$$52 \times 98$$

$$125 \times 32$$

$$78 \times 46$$

B. Simplify using identities

Use

$$(a + b)^2 = a^2 + 2ab + b^2$$

$$(a - b)^2 = a^2 - 2ab + b^2$$

$$(a + b)(a - b) = a^2 - b^2$$

$$x + 7)^2$$

$$(9 - y)^2$$

$$(m + 5)(m - 5)$$

$$(2x + 3)^2$$

C. Solve

If $a = 12$ and $b = 8$, find

$$(a + b)^2 - (a - b)^2$$

Factorise:

$$x^2 - 25$$

$$y^2 + 14y + 49$$

$$4p^2 - 9$$

Project work

Create a mini-booklet showing how distributive property makes large calculations easier.