



Assignment – 2

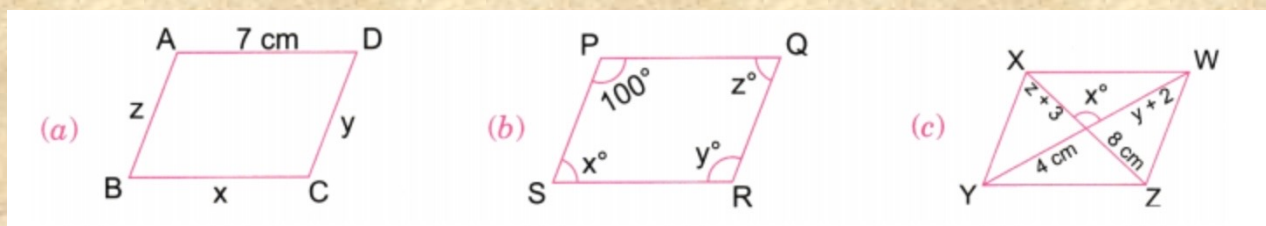
Subject: Mathematics

Class: VIII

July 2026

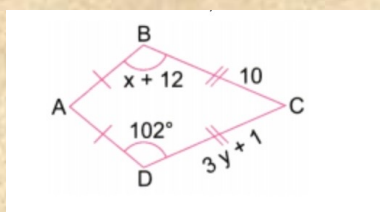
Chapter: QUADRILATERALS

Q1. For the following rhombuses, find the values of the unknowns x , y and z .

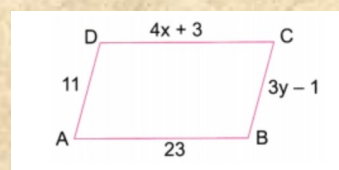


Q2. The angles of a quadrilateral are in ratio 3: 4: 5: 8. Find the angles respectively.

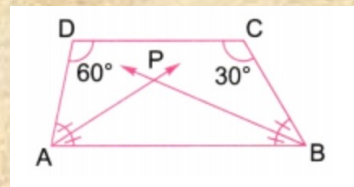
Q3. If ABCD is a kite, find the values of x and y .



Q4. Find the values of x and y for the following parallelogram

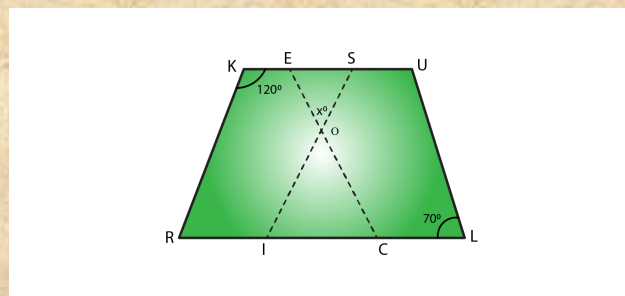


Q5. AP and BP are the bisectors of $\angle A$ and $\angle B$ of quadrilateral ABCD and $DC \parallel AB$. If $\angle D = 60^\circ$ and $\angle C = 30^\circ$, find the measure of $\angle APB$.



Q6. Draw a parallelogram with adjacent sides of lengths 4 cm and 5 cm, and an angle of 30° between them. What are the remaining angles of the parallelogram? What are the lengths of the remaining sides?

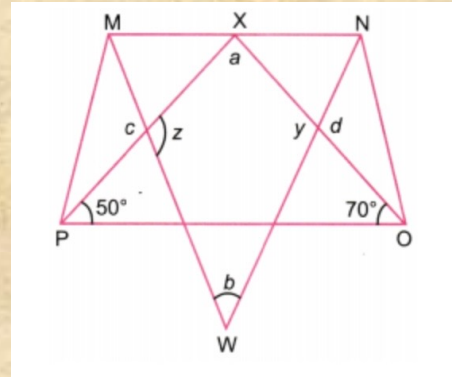
Q7. In the following figure RISK and CLUE are parallelograms. Find the measure of x .



Q8. There is a trapezium MNOP. Angle bisectors of $\angle M$ and $\angle N$ meet at point W, and angle bisectors of $\angle O$ and $\angle P$ meet at point X on side MN of trapezium MNOP.

By using the figure answer the following questions:

- What is the value of a ?
- What is the value of d ?
- What is the value of b ?
- What is the value of z ?



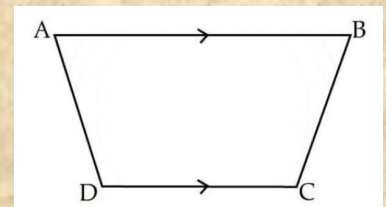
Q9. If two adjacent angles of a parallelogram are in the ratio 2:3 Find all the angles of the parallelogram.

Q10. If the angles of a quadrilateral are in the ratio 3: 6: 8: 13. Find the largest angle.

Q11. Diagonals of a quadrilateral ABCD bisect each other. If $\angle A = 45^\circ$. Then find $\angle B$.

Q12. The angles of a quadrilateral are x° , $x+5^\circ$, $x+10^\circ$, $x+25^\circ$. Then find the value of x .

Q13. ABCD is a trapezium such that $AB \parallel CD$, $\angle A : \angle D = 2:1$, $\angle B : \angle C = 7:5$, find the angles of the trapezium.



In questions 14 to 18, a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option.

- 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.

Q14. Assertion (A) : A kite has one pair of equal opposite angles.
Reason (R) : Adjacent sides of a kite are unequal.

Q15. Assertion (A) : All the parallelograms are rectangles.
Reason (R) : All the rhombuses are parallelograms.

Q16. Assertion (A): If three angles of a quadrilateral are 95° , 85° , and 110° , then the fourth angle is 70° .
Reason (R): The sum of the interior angles of a quadrilateral is twice the sum of the angles of a triangle.

Q17.Assertion (A): The diagonals of every rhombus are equal.

Reason (R): The diagonals of a rhombus bisect each other at right angles.

Q18. Assertion (A): If one diagonal of a kite bisects the other at right angles, the quadrilateral must be a square.

Reason (R): The diagonals of a kite are perpendicular, but only one diagonal bisects the other.

Chapter: NUMBER PLAY

Q1. Fill in the blanks:

- i. The sum of three consecutive numbers starting from 15 is _____
- ii. The digital root of 5218 is _____
- iii. The remainder when 4326 is divided by 3 is _____
- iv. The digital root of multiples of 9 is always _____
- v. The sum of $4x+4y$ is a multiple of _____

Q2. Find the numbers if the sum of three consecutive numbers is 30.

Q3. Write an algebraic expression for the number that leaves a remainder of 5 when divided by 7.

Q4. A number when divided by 5 leaves a remainder 1. What are four such numbers?

Q5. Find three consecutive numbers such that the first is a multiple of 7, the second is a multiple of 5, and the third is a multiple of 4.

Q6. The digital root of a 6-digit number is 8. What will be the digital root of 20 more than that number?

Q7. If $42'a'3$ is a multiple of 3 where 'a' is a digit, what could be the value of a?

Q8. Find the smallest number that is divisible by 18 and 24.

Q9. The middle number in a sequence of 5 consecutive numbers is 22. Express the other numbers in terms of this middle number and find their sum.

Q10. Find digital roots of some consecutive multiples of

- (a) 8
- (b) 5

Q11. Solve the Cryptarithms

- (a) $AB \times 3 = BC$
- (b) $37 + AB = 9A$
- (c) $2AB + AB1 = B18$

Q12. Find the greatest value of 'a' and 'b' so that the odd number '8a42b' is divisible by both 3&5.

- What are the possible values of the last digit of the number?
- If the sum of the digits of the number is 18, what are the possible values of the number?
- What is the largest possible amount of money Shobhit has?

Divisible by-> Number ↴	2	3	4	5	6	8	9	10	11
----------------------------	---	---	---	---	---	---	---	----	----

[illegible]