

INTERNATIONAL INDIAN SCHOOL BURAIDAH

Worksheet for the Academic Year 2025-26

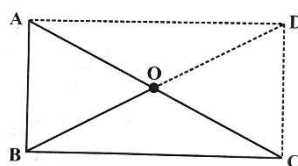
CLASS: VIII

SUBJECT: MATHEMATICS

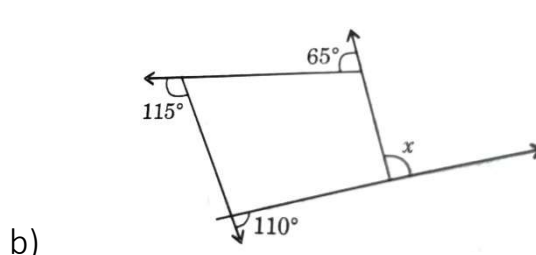
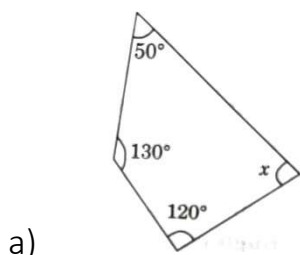
DATE: 25-05-2025

LESSON 3: UNDERSTANDING QUADRILATERALS

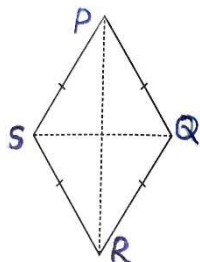
1. The name of the four-sided regular polygon is-----
2. The sum of the interior angles of a quadrilateral is----
3. A quadrilateral with one pair of sides parallel is-----
4. The number of diagonals of a triangle is-----
5. Find the measure of each exterior angle of a regular polygon of 8 sides.
6. Find the measure of each interior angle of a regular polygon of 9 sides.
7. The angles of quadrilaterals are in the ratio 2:3:5:8. Find the measure of each angle.
8. Find the number of sides of a regular polygon, whose each exterior angle has a measure of  $45^\circ$
9. How many sides do regular polygons consist of if each interior angle is  $165^\circ$ ?
10. Two adjacent angles of a parallelogram are equal. What is the measure of each of these angles?
11. The adjacent sides of a rectangle are in the ratio 5: 12, if the perimeter of the rectangle is 34cm. Find the length of the diagonal.
12. The opposite angles of a parallelogram are  $(3x + 5)^\circ$  and  $(61 - x)^\circ$ . Find the measure of four angles?
13. Write any two properties of
  - a) Parallelogram
  - b) Kite
  - c) Rectangle
  - d) Square
  - e) Rhombus
  - f) Trapezium
14. In the given figure, ABCD is a rectangle. Find x, if  $AO = 4x + 1$  and  $BO = 3x + 2$



15. Find the measure of angle  $x$  in the following figures:



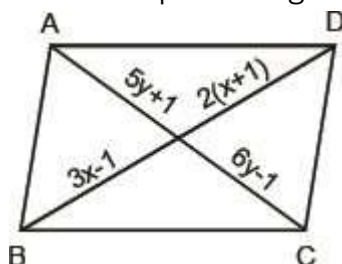
16. PQRS is a Rhombus. Diagonals PR and SQ meet at O.  $PO = 8\text{cm}$ ,  $RO = x$ ,  $SO = 6\text{cm}$ ,  $QO = y$ . Find the value of  $x$  and  $y$ . Also, find the side SP



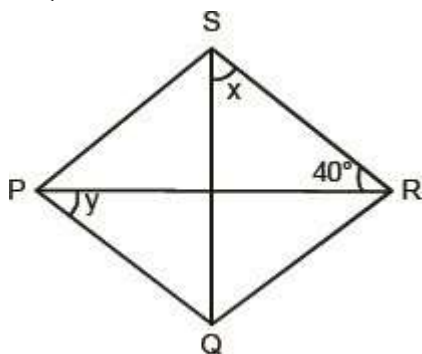
17. EFGH is a parallelogram.  $m\angle E = 75^\circ$ . Find the other angles

18. Find the value of  $x$ ,  $y$  and  $z$  in the following figures:

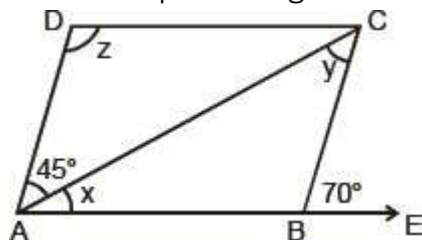
a) ABCD is a parallelogram



b) PQRS is a Rhombus



c) ABCD is a parallelogram



Answers:

- |  |                                      |                |
|--|--------------------------------------|----------------|
| 1. Square  | 2. $360^\circ$                       | 3. Trapezium   |
| 4. Zero  | 5. $45^\circ$                        | 6. $140^\circ$ |
| 7. $40^\circ, 60^\circ, 100^\circ, 160^\circ$          | 8. 8                                 | 9. 24          |
| 10. $90^\circ$   | 11. 13cm                             |                |
| 12. $47^\circ, 133^\circ, 47^\circ, 133^\circ$         |                                      |                |
| 14. $x = 1$  | 15. a) $60^\circ$ b) $70^\circ$      |                |
| 16. $x = 8\text{cm}, y = 6\text{cm}, SP = 10\text{cm}$ | 17. $105^\circ, 75^\circ, 105^\circ$ |                |
| 18. a) $x = 3, y = 2$                                  | b) $x = 50^\circ, y = 40^\circ$      |                |
| c) $x = 25^\circ, y = 45^\circ, z = 110^\circ$         |                                      |                |

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