

INTERNATIONAL INDIAN SCHOOL

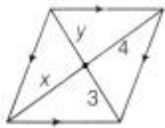
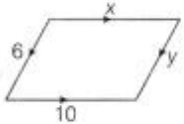
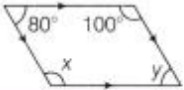
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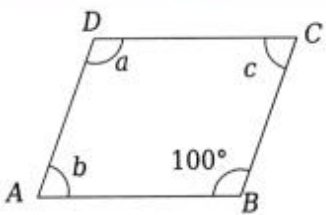
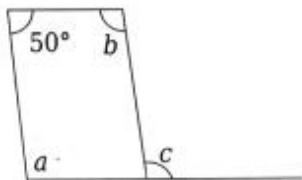
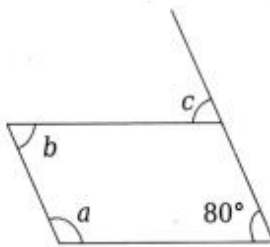
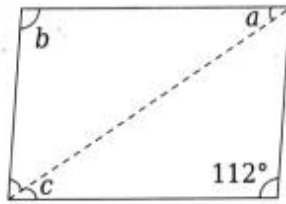
Worksheet For The Academic Year 2026-27

CLASS: VIII SUBJECT: Mathematics DATE: 19/06/2026

LESSON-4 Quadrilaterals

- 1) A _____ is a four-sided polygon.
- 2) The sum of the angles of a quadrilateral is _____ .
- 3) In a rhombus the diagonals bisect at _____ angles.
- 4) In a _____ and _____ the diagonals are equal.
- 5) In a _____ the diagonals are perpendicular but only one diagonal is bisected.
- 6) In a trapezium only _____ pair of opposite sides are parallel.
- 7) A _____ has two distinct pairs of adjacent sides equal.
- 8) In a _____ the diagonals are not equal.
- 9) A quadrilateral whose diagonals are equal but not perpendicular is _____.
- 10) Choose the values of x and y:

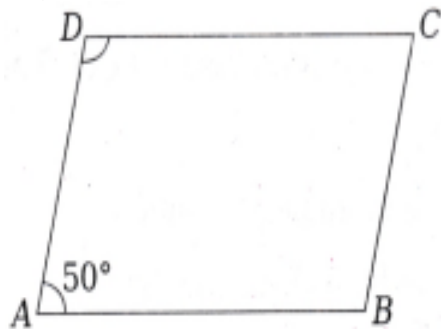
S.No.	Column I (Parallelogram)		Column II (Values of x and y)
(i)		(a)	$x = 10$ and $y = 6$
(ii)		(b)	$x = 4$ and $y = 3$
(iii)		(c)	$x = 60^\circ$ and $y = 120^\circ$
(iv)		(d)	$x = 100^\circ$ and $y = 80^\circ$

S.No.	Parallelogram	$a =$	$b =$	$c =$	$a + b + c =$
(i)		_____	_____	80°	260°
(ii)		_____	_____	_____	390°
(iii)		100°	_____	_____	_____
(iv)		_____	_____	28°	_____

11) Observe the following parallelograms and put the values of unknown a , b , c in the given table.

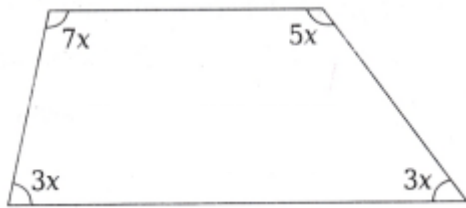
12) If three angles of a quadrilateral are 49° , 70° and 121° . Find the fourth angle.

13) In the given figure ABCD is a parallelogram, find $\angle D$.

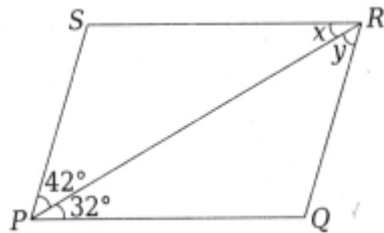


14) Construct a square whose diagonal is 4 cm.

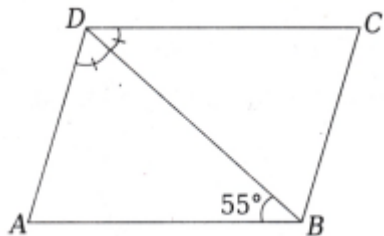
15) In the given figure, find the value of x .



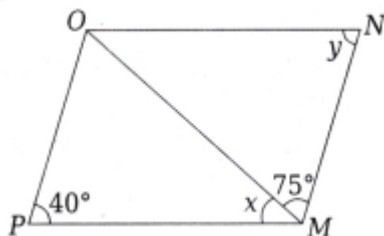
16) Find $x + y$ in the given figure if PQRS is a parallelogram.



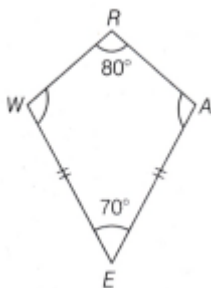
17) In the given parallelogram, find $\angle ADC$ if $\angle ADB = \angle BDC$



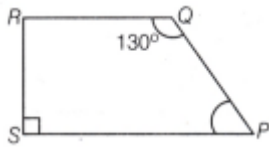
18) Find $x + y$ in the given parallelogram MNOP.



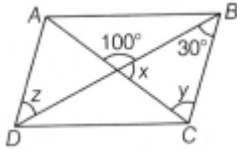
19) In the given kite WEAR, $\angle WEA = 70^\circ$ and $\angle ARW = 80^\circ$. Find the remaining two angles.



20) In the given figure, PQRS is a trapezium in $SP \parallel RQ$, then find the measures of $\angle P$ and $\angle R$.

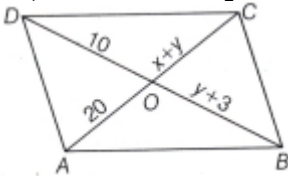


21) In the given figure, ABCD is a parallelogram. Find the values of x , y and z .

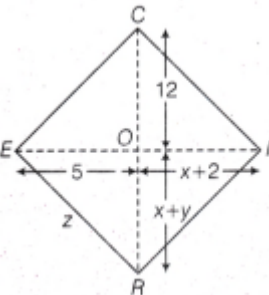


22) Construct a rhombus whose length of diagonals are 8 cm and 6 cm.

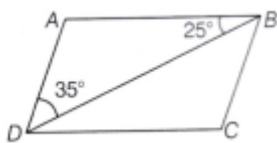
23) ABCD is a parallelogram as shown in figure. Find the values of x and y .



24) RICE is a rhombus, $CI = 13\text{cm}$. Find x , y and z , justify your answers.

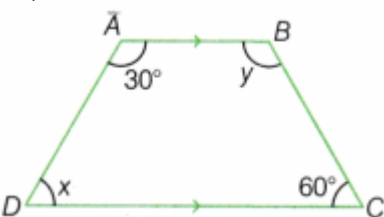


25) In the given figure, ABCD is a parallelogram, in which $\angle ABD = 25^\circ$ and $\angle ADB = 35^\circ$. Find all the angles of the parallelogram.



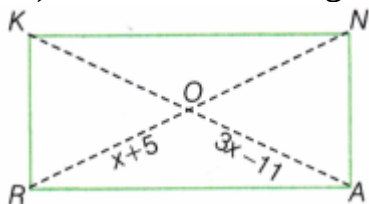
26) Draw a parallelogram with adjacent sides of lengths 4 cm and 5 cm, and an angle of 30° between them.

27) Find the values of x and y from the trapezium given below.



28) Draw a parallelogram with diagonals of length 7 cm, 5 cm and an angle of intersection 60° .

29) RANK is a rectangle. Its diagonals meet at O. Find ON and x (length in cm).



30) Construct a rhombus whose diagonals are of length 8 cm and 3 cm.

31) Construct a kite whose diagonals are of lengths 5 cm and 10 cm.

32) Construct an isosceles trapezium whose one side is 10cm.

33) Construct a square whose all four sides are 7cm and one angle is 90° .

34) Draw a Venn Diagram to show the relationship between :

a) Parallelogram , rectangle , square , rhombus

b) Rectangle , square , rhombus

c) Parallelogram , rectangle , square

35) a) Is a square a rectangle? Is a rectangle a square? Justify.

b) Is a kite a trapezium? Is a trapezium a kite? Write reasons for your answer.

c) Is a parallelogram a rhombus? Is a rhombus a parallelogram? Justify.

Answers

10) a) 1-b , 2-c , 3-a , 4-d

11) (i) 100° , 80° (ii) 130° each (iii) $80^\circ, 80^\circ, 260^\circ$ (iv) $28^\circ, 112^\circ, 168^\circ$

12) 120° 13) 130° 15) 20 16) 74° 17) 110° 18) 105°

19) $\angle A = \angle W = 105^\circ$ 20) $\angle R = 90^\circ$, $\angle P = 50^\circ$

21) $x = 80$, $y = 70$, $z = 30$ 23) $x = 13$, $y = 7$ 24) $x = 3$, $y = 9$, $z = 13$

25) $\angle A = \angle C = 120^\circ$ & $\angle B = \angle D = 60^\circ$ 27) $x = 150^\circ$, $y = 120^\circ$

29) $x = 8$, $ON = 13$