

INDIAN SCHOOL AL WADI AL KABIR

Class VIII, Mathematics (2024-25)

Worksheet DTQ – UNDERSTANDING QUADRILATERALS

SHORT ANSWER TYPE QUESTIONS- 7 QUESTIONS. (2 Marks each)

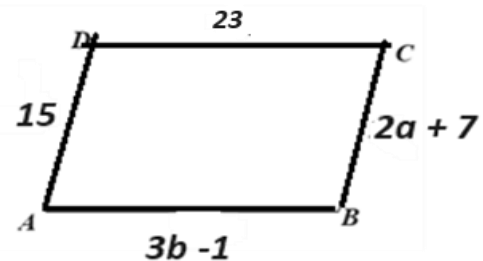
Q1. Adjacent angles of a parallelogram are in the ratio 3 : 7 . Find the values of all angles.

Q2. Measure of one angle of a parallelogram is 108° . Find the other three angles.

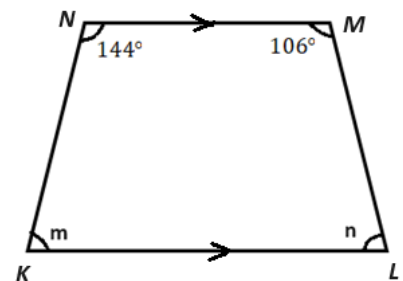
Q3. Find the number of sides of a regular polygon with each interior angle measuring 120° .

Q4. Three angles of a quadrilateral are equal. Fourth angle is 150° . Find the measure of other three angles.

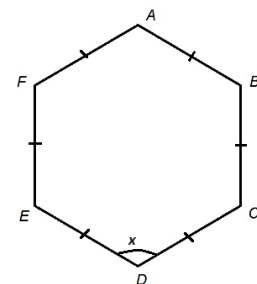
Q5. In parallelogram ABCD, find the value of a and b



Q6. KLMN is a trapezium. Find the value of the missing angles m and n ?



Q7. Find the value of angle measure ' x ' in the given figure.

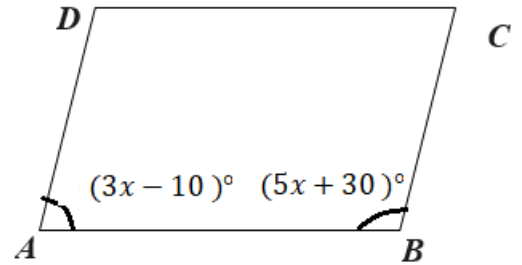


Q8. The measure of each exterior angle of a regular polygon is 18° . Find the number of sides of the polygon and hence the measure of each interior angle.

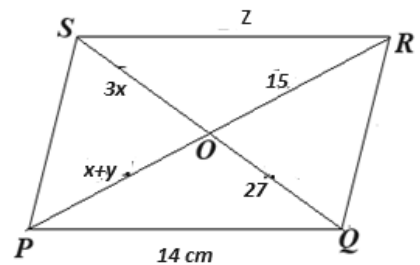
SHORT ANSWER TYPE- 5 QUESTIONS. (3 Marks each)

Q9. If ABCD is a trapezium and $AB \parallel CD$, $\angle DAB = 68^\circ$ and $\angle ABC = 82^\circ$, find the measures of $\angle ADC$ and $\angle BCD$.

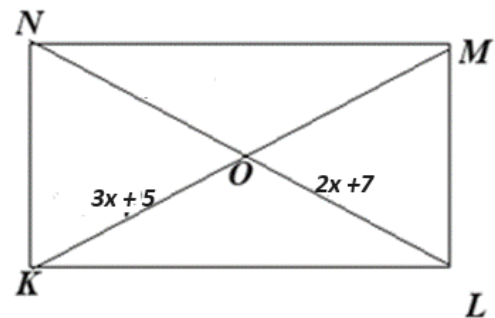
Q10. In parallelogram ABCD,
 $\angle A = (3x - 10)^\circ$, $\angle B = (5x + 30)^\circ$.
 Find all the angles of the parallelogram.



Q11. In parallelogram PQRS, find the value of x , y and z .

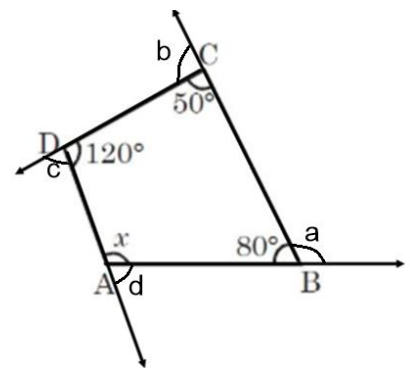


Q12. KLMN is a rectangle. Find the value of x and also find the length of the diagonal.

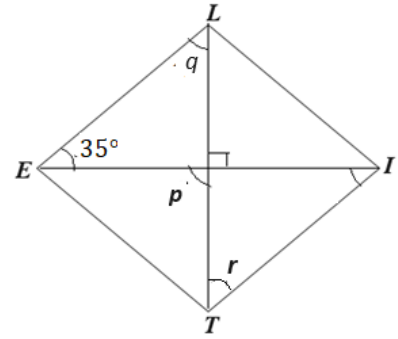


LONG ANSWER TYPE- 3 QUESTIONS. (4 Marks each)

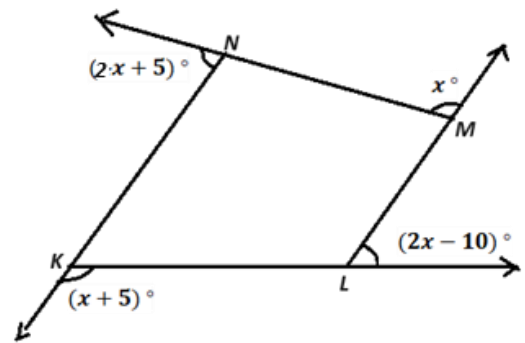
Q13. In given figure, find the value of a, b, c and d and hence verify that $a + b + c + d = 360^\circ$ (CBQ)



Q.14 TILE is a rhombus. Find the value of p, q and r. (CBQ)



Q15. KLMN is a quadrilateral. Find the value of x ?
Find each interior angle of the quadrilateral KLMN. (CBQ)



ANSWERS

Q1.	$54^\circ, 126^\circ, 54^\circ$ and 126° .	Q2.	$108^\circ, 72^\circ, 108^\circ$ and 72°	Q3.	6 sides
Q4.	70° each	Q5.	$a = 4, b = 8$	Q6.	$m = 36^\circ, n = 74^\circ$.
Q7.	120°	Q8.	20 sides, 162°	Q9.	$\angle ADC = 112^\circ$, and $\angle BCD = 98^\circ$
Q10.	$\angle A = 50^\circ, \angle B = 130^\circ$, $\angle C = 130^\circ$ and $\angle D = 50^\circ$	Q11.	$x = 9, y = 6$ and $z = 14$	Q12.	$x = 2$, length of diagonal = 22cm
Q13.	$a = 100^\circ, b = 130^\circ$, $c = 60^\circ$ and $d = 70^\circ$	Q14.	$p = 90^\circ, q = 55^\circ$ and $r = 55^\circ$	Q15.	$x = 60^\circ, \angle K = 115^\circ, \angle L = 70^\circ$ and $\angle M = 120^\circ, \angle N = 55^\circ$