15 PROPERTIES OF QUADRILATERALS

Q1. In a quadrilateral, the angles are in the ratio 2 : 3 : 4 : 3. Find the measure of each angle of the quadrilateral.

Answer: _____

Q2. Find the measure of all the angles of a quadrilateral having two right angles and the other two angles are in the ratio 7 : 11.

Answer: _____

Q3. In a parallelogram WXYZ, ∠W is one–third of ∠X. Find the measure of all the angles of the parallelogram.

∠W = _____; ∠X = _____; ∠Y = _____; ∠Z = _____

Q4. In a parallelogram ABCD, AN and MC are perpendiculars on sides CD and AB respectively. Prove that AMCN is a rectangle.

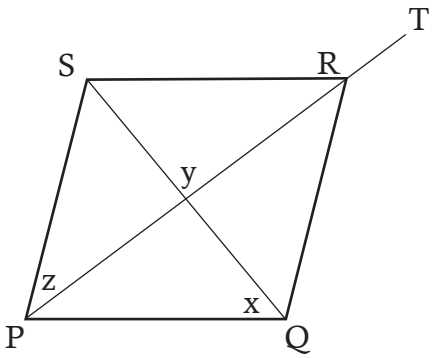
Q5. The sum of two adjacent sides of a parallelogram is 5.2 cm. Find the perimeter of the parallelogram.

Answer: _____

Q6. Find the perimeter of a rhombus whose diagonals measure 24 cm and 10 cm.

Perimeter of the rhombus = _____

Q7. In the given rhombus PQRS, the diagonal PR is produced to T. If ∠SRT=152°, find the value of x, y and z.



x = _____; y = _____; z = _____

Q8. If EFGH is a parallelogram, then state the following statements as True or False:

a. EF = FG _____

b. EF + FG = EH + HG _____

c. ∠EFG = ∠EHG _____

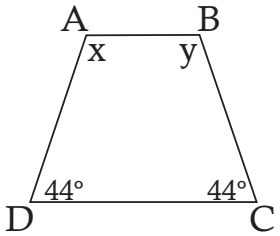
d. ∠EFG + ∠EHG = 180° _____

e. If ∠EFG is an acute angle, then ∠FGH must be an acute angle. _____

Q9. ABCD is a rhombus whose diagonals intersect at O. If OA and OB are in the ratio 3 : 4 and the diagonal AC is 12 cm long, find the perimeter of the ΔAOB.

Perimeter of the ΔAOB = _____

Q10. Find the value of x and y in the following trapezium:



x = _____; y = _____

Answers

1. 60°, 120°, 90°, 90°
2. 90°, 90°, 70°, 110°
3. $\angle W = 45°$; $\angle X = 135°$; $\angle Y = 45°$; $\angle Z = 135°$
4. AM||CN, CM||AN. So, AMCN is a parallelogram.
   $\angle AMC = 90°$. So, AMCN is a rectangle.
5. 10.4 cm
6. 52 cm
7. $x = 62°$, $y = 90°$, $z = 28°$
8. a. False; b. True; c. True; d. False; e. False
9. 24 cm
10. $x = 136°$; $y = 136°$