Worksheet: Quadrilaterals

NIOS · Class 9 · Mathematics · 12 questions · 27 marks

Name: _____ Date: _____ Score: _____ / 27

Q1. Three angles of a quadrilateral are 80°, 100°, 110°. Find the fourth. *[1 mark]*

Q2. Name the quadrilateral whose diagonals are equal AND bisect each other at right angles. *[1 mark]*

Q3. In parallelogram ABCD, A = 75°. Find C. *[1 mark]*

Q4. In parallelogram ABCD, A = 70°. Find B. *[1 mark]*

Q5. In △ABC, D and E are midpoints of AB and AC respectively. If BC = 10 cm, find DE. *[1 mark]*

Q6. A rhombus has diagonals 16 cm and 30 cm. Find each side. *[2 marks]*

Q7. In rectangle ABCD, AC and BD are diagonals. If AC = 26 cm and AB = 10 cm, find BC. *[2 marks]*

Q8. In quadrilateral ABCD, AB = CD and AB ∥ CD. Show that ABCD is a parallelogram. *[3 marks]*

Q9. In △ABC, P, Q, R are midpoints of BC, CA, AB respectively. Show that PQRS (where S is... actually a simpler version) — Show that △PQR has each side equal to half of one side of △ABC. *[3 marks]*

Q10. Prove that the diagonals of a rhombus bisect each other at right angles. *[4 marks]*

Q11. In △PQR, S is the midpoint of PQ. A line through S parallel to QR meets PR at T. Prove that T is the midpoint of PR. *[4 marks]*

Q12. Prove: in any quadrilateral, the midpoints of the four sides form a parallelogram. *[4 marks]*