Worksheet: The Baudhyana–Pythagoras Theorem

IGCSE · Class 8 · Mathematics · 8 questions · 14 marks

Name: _____ Date: _____ Score: _____ / 14

Q1. A right-angled triangle has legs of 9 cm and 12 cm. What is the length of its hypotenuse? *[1 mark]*

A) 13.5 cm

B) 18 cm

C) 21 cm

D) 15 cm

Q2. What is the length of the diagonal of a square whose side is 7 cm? *[1 mark]*

A) 14 cm

B) 49 cm

C) 7 cm

D) 72 cm

Q3. Which of the following is NOT a Baudhyana (Pythagorean) triple? *[1 mark]*

A) (6, 8, 11)

B) (6, 8, 10)

C) (9, 12, 15)

D) (12, 16, 20)

Q4. A square is drawn on a dotted grid with all four corners on grid dots. Which of these areas is IMPOSSIBLE for such a square? *[1 mark]*

A) 3 sq units

B) 4 sq units

C) 2 sq units

D) 5 sq units

Q5. The hypotenuse of an isosceles right-angled triangle is 8 cm. What is the length of each of its equal sides? *[1 mark]*

A) 32 cm

B) 4 cm

C) 82 cm

D) 64 cm

Q6. A ladder 25 m long rests against a vertical wall with its foot 7 m away from the wall. How far up the wall does the ladder reach? *[3 marks]*

Q7. A right-angled triangle has legs of length 5 and 6. Between which two numbers with one digit after the decimal point does its hypotenuse lie? Show the squaring that proves it. *[3 marks]*

Q8. Is (5, 12, 13) a scaled version of a smaller Baudhyana triple? Justify your answer, and then find the smallest scaled version of it in which all three numbers are greater than 100. *[3 marks]*