

SATISH CHANDRA MEMORIAL SCHOOL
STD VIII
CLASS TEST
CH: THE BAUDHAYANA-PYTHAGORAS THEOREM
FM-10

SECTION A ($4 \times 1 = 4$)

Q.1. In a triangle, one angle is of 90° . Then:

- (i) The other two angles are of 45° each
- (ii) In remaining two angles, one angle is 90° and other is 45°
- (iii) Remaining two angles are complementary

In the given option(s) which is true?

- (a) (i) only (b) (ii) only (c) (iii) only (d) (i) and (ii)

Q.2. Which of the following sets of numbers can form a right-angled triangle?

- (a) (6, 8, 10) (b) (5, 6, 7) (c) (8, 10, 12) (d) (7, 9, 11)

Q.3. The length of each equal side of an isosceles right triangle is 7 cm. What is the length of the hypotenuse?

- (a) $7\sqrt{2}$ cm (b) 14 cm (c) 49 cm (d) $\sqrt{14}$ cm

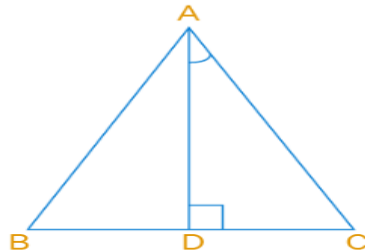
Q.4. Assertion (A): In an isosceles right-angled triangle with equal sides of length a , the hypotenuse is equal to $a\sqrt{2}$.

Reason (R): The number $\sqrt{2}$ cannot be expressed as a terminating decimal or as a fraction of two positive integers.

- (a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

SECTION B ($3 \times 2 = 6$)

Q.5. In an equilateral triangle ABC, AD is an altitude. Then prove that $4AD^2 = 3AB^2$.



Q.6. Find the Pythagorean triplet whose smallest member is 15.

Q.7. Height of a pole is 8 m. Find the length of rope tied with its top from a point on the ground at a distance of 6 m from its bottom.