KIRAN TUTORIALS **Seat No.** | | | | | | | |

Std 10 (English) **Mathematics Part - II** **Date 01-10-20**

Time 1HRS **Chapter 2nd chp** **Marks 20**

Q.1 Multiple Choice Questions **1**

1 In $\triangle ABC$, $\angle A = 60°$, $\angle C = 30°$, $\angle B = 90°$ and AC = 6 cm. Find the length of side AB.
a. 3 b. 4 c. 5 d. 6

Q.2 Answer the following. **1**

1 Find the diagonal of a rectangle whose length is 35 cm and breadth is 12 cm.

Q.3 Answer the following **4**

1 Find the length of the hypotenuse of a square whose side is 16 cm.

2 Find the side and perimeter of a square whose diagonal is $13\sqrt{2}$cm.

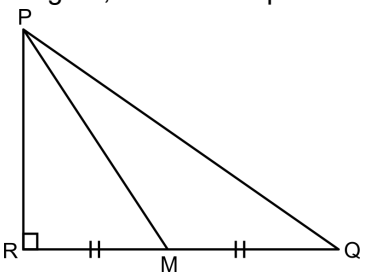
Q.4 Solve the following (Any One) **3**

1 Prove that : In a right angled triangle, the square of the hypotenuse is equal to the sum of the squares of remaining two sides.

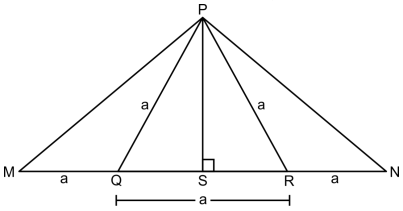
2 Seg AM is a median of $\triangle ABC$. If AB = 22, AC = 34, BC = 24, Find AM.

Q.5 Answer the following **8**

1 In figure, M is the midpoint of QR. $\angle PRQ = 90°$. Prove that, $PQ^2 = 4PM^2 - 3PR^2$

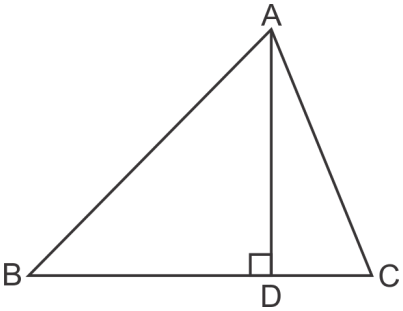


2 From the information given in the figure, prove that PM = PN = $\sqrt{3} \times$ a.



Q.6 Answer the following (Any One) **3**

1 The perpendicular AD on the base of $\triangle ABC$ intersects BC at D so that BD = 3 CD.
Prove that : $2AB^2 = 2AC^2 + BC^2$



2 Pranali and Prasad started walking to the East and to the North respectively, from the same point and at

the same speed. After 2 hours distance between them was $15\sqrt{2}$ km. Find their speed per hour.