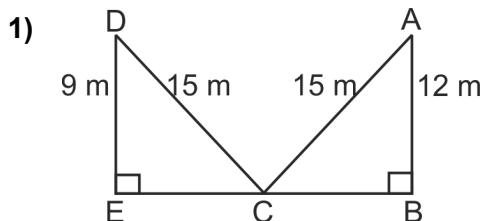


Chapter: 2

Q.1 Choose the correct alternatives.

(3)



A ladder reaches a window 12 m above the ground on one side of the street. Keeping its foot at the same point, the ladder is turned to the other side of the street to reach a window 9 m high. If the length of the ladder is 15m, then the width of the street is

- a. 30 m b. 24 m c. 21 m d. 18 m

- 2) Complete the statement, in a right angled triangle the square of the hypotenuse is equal to
 a. Product of length of other sides b. Difference of squares of remaining sides
 c. Sum of squares of remaining sides d. None of above

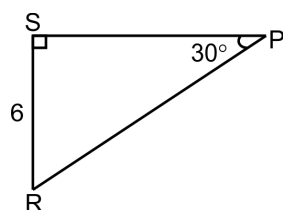
- 3) Height and base of a right angled triangle are 24 cm and 18 cm find the length of its hypotenuse.
 a. 24 cm b. 30 cm c. 15 cm d. 18 cm

Q.2 Solve the following question. (Any Two)

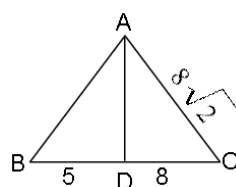
(4)

1)

In figure, find RP and PS using the information given in $\triangle PSR$.



2)



In $\triangle ABC$, seg $AD \perp$ seg BC , $\angle C = 45^\circ$, $BD = 5$ and $AC = 8\sqrt{2}$ then find AD and BC.

- 3) Prove that : In a triangle if the square of one side is equal to the sum of the squares of the remaining two sides, then the triangle is a right angled triangle.

Q.3 Solve the following question. (Any Two)

(6)

1)

In $\triangle PQR$, point S is the midpoint of side QR. If $PQ = 11$, $PR = 17$, $PS = 13$, find QR.

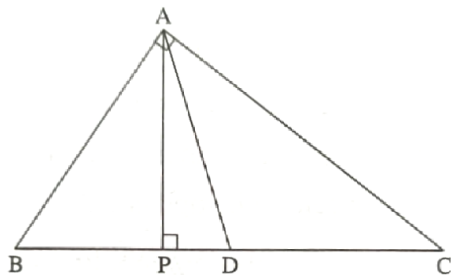
- 2) In an isosceles triangle, length of the congruent sides is 13 cm and its base is 10 cm. Find the distance between the vertex opposite the base and the centroid.
- 3) Prove that, the sum of the squares of the diagonals of a rhombus is equal to the sum of the squares of the sides.

Q.4 Solve the following question. (Any One)

(4)

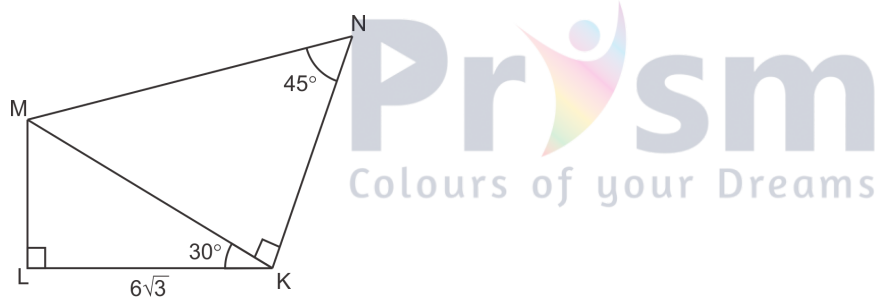
1)

In $\triangle ABC$, $\angle BAC = 90^\circ$, seg $AP \perp$ side BC, $B - P - C$. Point D is the midpoint of side BC, then prove that $2AD^2 = BD^2 + CD^2$.



2)

In the figure, If $LK = 6\sqrt{3}$, find MK, ML, KN, MN, and the perimeter of $(\square MNKL)$

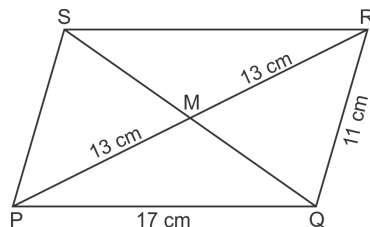


Q.5 Solve the following question. (Any One)

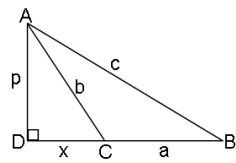
(3)

1)

$\square PQRS$ is a parallelogram. $PQ = 17$ cm, $QR = 11$ cm and $PR = 26$ cm. Find the length of QS.



2)



In $\triangle ABC$, $\angle ACB$ is obtuse angle, seg $AD \perp$ seg BC . Prove that: $AB^2 = BC^2 + AC^2 + 2BC$

$\times CD$