

Chapter: 5

Q.1 Choose the correct alternative.

(3)

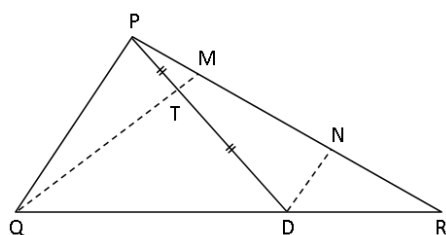
- 1) In a rhombus PQRS, the diagonals PR and QS are 8 cm and 6cm respectively. The length of the side of Rhombus is
a. 7 cm b. 5 cm c. 6 cm d. 8 cm
- 2) In a parallelogram ABCD. if $\angle A = (3x - 20)^\circ$ $\angle B = (y + 15)^\circ$ $\angle C = (x + 40)^\circ$ find the value of x and y.
a. $x = 95^\circ$, $y = 30^\circ$ b. $x = 30^\circ$, $y = 95^\circ$
c. $x = 15^\circ$, $y = 105^\circ$ d. $x = 25^\circ$, $y = 105^\circ$
- 3) A line drawn from the mid point of one side of a triangle Another side, intersects the third side at its mid point.
a. Perpendicular to b. Parallel to c. To meet d. None of there

Q.2 Solve the following questions. (Any three)

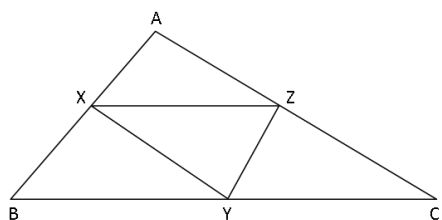
(9)

- 1) In figure, Seg PD is a median of $\triangle PQR$ Point T is the mid - point of Seg PD. Produced QT intersects PR at M. Show that $\frac{PM}{PR} = \frac{1}{3}$

[Hint : draw $DN \parallel QM$]



- 2) In figure, point X,Y,Z are the midpoints of side AB, side BC and Side AC of $\triangle ABC$ respectively. $AB = 5\text{cm}$, $AC = 9\text{cm}$ and $BC = 11\text{cm}$. Find the length of XY, YZ, XZ.



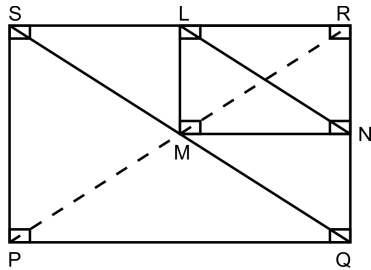
3)

In the figure, $\square PQRS$ and $\square MNRL$ are rectangles. If point M is the midpoint of Side PR, then

prove that

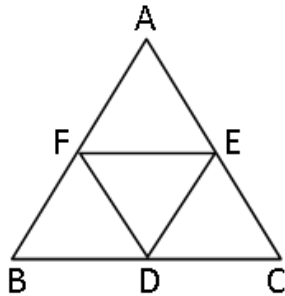
i. $SL = LR$

ii. $LN = \frac{1}{2} SQ$



4)

In figure, $\triangle ABC$ is an equilateral triangle. Point F, D and E are midpoints of side AB, Side BC and Side AC respectively. Show that $\triangle FED$ is an equilateral triangle.



Prism
Colours of your Dreams

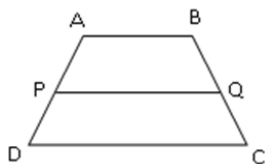
Q.3 Solve the following questions. (Any two)

(8)

1) Diagonals of a parallelogram intersect each other at point O. If $AO = 5$, $BO = 12$ and $AB = 13$, then show that $\square ABCD$ is a rhombus.

2)

In the adjoining figure, $\square ABCD$ is trapezium. $AB \parallel DC$. Point P and Q are midpoints of seg AD and seg BC respectively. Then prove that, $PQ \parallel AB$ and $PQ = \frac{1}{2} (AB + DC)$.



3)

In $\square ABCD$, side $BC < \text{side } AD$. side $BC \parallel \text{side } AD$ and if side $BA \cong \text{side } CD$. Prove that -

$\angle ABC \cong \angle DCB$.

