

CLASS X – MATHEMATICS – CHAPTER 06

TRIANGLES

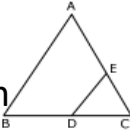
Name: _____

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CHOOSE THE CORRECT OPTION FROM QUES 1 TO 9

Q01. In the fig $\Delta ABC \sim \Delta EDC$, if we have $AB = 4\text{cm}$, $ED = 3\text{cm}$, $CE = 4.2\text{ cm}$ and $CD = 4.8\text{cm}$, then the values of CA and CB are

- (a) 6cm, 6.4 cm (b) 4.8cm, 6.4cm (c) 5.4cm, 6.4cm (d) 5.6, 6.4cm



Q02. A man goes 15 m due west and then 8m due north. Find distance from the starting point.

- (a) 17m (b) 18m (c) 16m (d) 7m

Q03. In a triangle ABC , if $AB = 12\text{cm}$, $BC = 16\text{cm}$, $CA = 20\text{cm}$, then ΔABC is

- (a) Acute angled (b) equilateral triangle (c) Isosceles triangle (d) Right angled

Q04. In an isosceles triangle ABC , $AB = AC = 25\text{cm}$ and $BC = 14\text{cm}$. Then altitude from A on $BC =$

- (a) 20 cm (b) 24cm (c) 12cm (d) None of these

Q05. The length of the side of a square whose diagonal is 16cm

- (a) 16cm (b) $8\sqrt{2}\text{cm}$ (c) $5\sqrt{2}$ (d) None of these

Q06. In an isosceles triangle ABC If $AC = BC$ and $AB^2 = 2AC^2$ then $\angle C =$

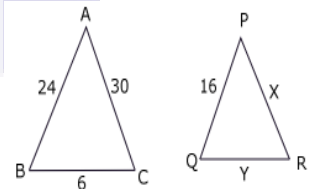
- (a) 45° (b) 60° (c) 90° (d) 30°

Q07. If in two triangles ABC and PQR $(AB/QR) = (BC/PR) = (CA/PQ)$

- (a) $\Delta PQR \sim \Delta CAB$ (b) $\Delta PQR \sim \Delta ABC$ (c) $\Delta CBA \sim \Delta PQR$ (d) $\Delta BCA \sim \Delta PQR$

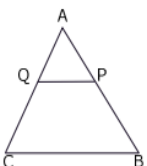
Q08. In the given figure $\Delta ABC \sim \Delta PQR$. Then the value of x and y

- (a) $(x, y) = (6, 20)$ (b) $(20, 60)$
 (c) $(x, y) = (3, 10)$ (d) none of these

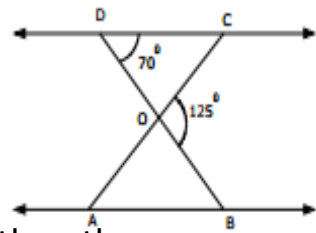


Q09. In fig P and Q are points on the sides AB and AC respectively of ΔABC such that $AP = 3.5\text{cm}$, $AQ = 3\text{cm}$ and $QC = 6\text{cm}$. If $PQ = 4.5\text{cm}$, then BC is

- (a) 12.5cm (b) 5.5cm (c) 13.5cm (d) none of these



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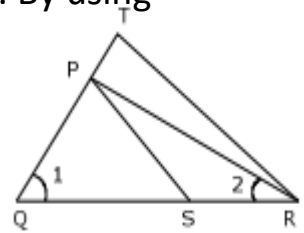


Q01. In the given Figures, $\Delta ODC \sim \Delta OBA$, $\angle BOC = 125^\circ$ and $\angle CDO = 70^\circ$. Find

- (i) $\angle DOC$ (ii) $\angle DCO$ (iii) $\angle OAB$ (iv) $\angle AOB$ (v) $\angle OBA$

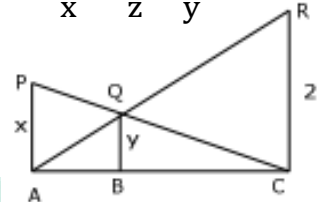
Q02. Prove that if a line is drawn parallel to one side of a triangle to intersect the other two sides at distinct points other two sides are divided in the same ratio. By using

this theorem proves that in ΔABC if $DE \parallel BC$ then $\frac{AD}{BD} = \frac{AE}{EC}$.

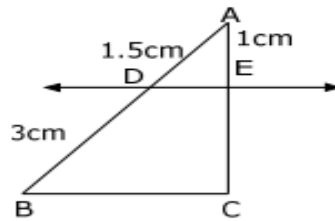


Q03. In the given figure, $\frac{QT}{PR} = \frac{QR}{QS}$ and $\angle 1 = \angle 2$. Prove that $\Delta PQS \sim \Delta TQR$

Q04. In the given figure PA, QB and RC are each perpendicular to AC. Prove that $\frac{1}{x} + \frac{1}{z} = \frac{1}{y}$

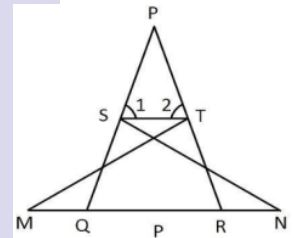


Q05. In the given figure $DE \parallel BC$, Find EC



Q06. The length of the diagonals of a rhombus are 24 cm and 10cm. find each side of rhombus.

Q07. In the given figure, if $\angle 1 = \angle 2$ and $\Delta NSQ \cong \Delta MTR$. Then prove that $\Delta PTS \sim \Delta PRQ$.



Q08. In the given figure $OA \cdot OB = OC \cdot OD$ or, $\frac{OA}{OC} = \frac{OD}{OB}$, Prove that $\angle A = \angle C$ and $\angle B = \angle D$.

