

MULTIPLE CHOICE QUESTIONS FOR PRACTICE

SUBJECT: MATHEMATICS

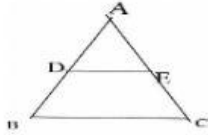
UNIT: TRIANGLES

CLASS:10

STUDENT NAME:

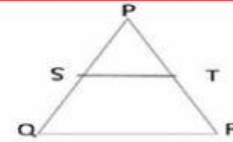
SCHOOL NAME:

Four alternative /choices are given for each incomplete statement or a question.
Click the correct answer.

- The sides of two similar triangles are in the ratio 4:9, Areas of these triangles are in the ratio
 A)2:3 B) 4:9 C)81:16 D)16:81
 - Areas of two similar triangles are 81cm^2 and 16cm^2 respectively. The ratio of their corresponding sides is
 A)9:4 B)16:81 C)4:9 D)64:9
 - Which of the following does not represent a Pythagorean triplet?
 A)3,4,5 B) 5,12,13 C)24,25,7 D) 8,12,15
 - Two poles of length 6cm and 11cm are 12 cm apart. The distance between their tops is.....
 A) 13m B)7m C)15m D)14m
 - In $\triangle ABD$, $\angle A=90^\circ$ and $AC \perp BD$ then $AC^2=.....$
 A) BC.BD B) BC.DC C) BD.CD D) AB.AD
 - One of the sides of isosceles Right angled triangle is $4\sqrt{2}\text{cm}$, the measure of its Hypotenuse is.....
 A) $12\sqrt{2}\text{cm}$ B)12cm C) $8\sqrt{2}\text{cm}$ D)8cm
 - $\triangle ABC$ and $\triangle ADE$ are two equilateral triangles, D and E are the midpoints of AB and AC respectively. The ratios of the areas of $\triangle ABC$ and $\triangle ADE$ is.....
 A) 2:1 B)1:2 C)4:1 D) 1:4
- 
- $\triangle ABC \sim \triangle EFD$ then the ratios of corresponding sides are.....
 A) $\frac{AB}{FD} = \frac{BC}{EF}$ B) $\frac{AB}{EF} = \frac{BC}{FD}$ C) $\frac{AC}{EF} = \frac{BC}{ED}$ D) none of the above
 - Length of the side of a rhombus with diagonals 12cm and 16cm is.....
 A) 8cm B)9cm C) 10cm D)18cm
 - “A line drawn parallel to any side of the triangle to intersect other two sides in the distinct points, the other two sides are divided in the same ratio”—The above statement is known as
 A) Thales theorem B) Converse of Thales theorem
 C) Pythagoras theorem D) Converse of Pythagoras theorem

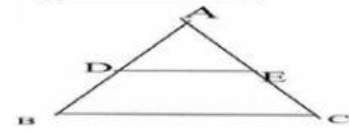
11. In the following triangle, $ST \parallel QR$, $\frac{PS}{SQ}$ is equal to

- A) $\frac{PT}{TR}$ B) $\frac{PS}{TR}$ C) $\frac{PT}{SQ}$ D) $\frac{PT}{SR}$



12. In the following $\triangle ABC$, $DE \parallel BC$, $AD=15\text{cm}$, $BD=3\text{cm}$ and $AE=10\text{cm}$ then the measure of CE is.....

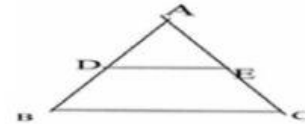
- A) 2cm B) 3cm C) 1.5cm D) 2.5cm



13. In $\triangle ABC$ $DE \parallel BC$, $DE=5\text{cm}$, $BC=8\text{cm}$

and $AD=3.5\text{cm}$ then the length of AE is.....

- A) 5.6cm B) 4.8cm C) 5.2cm D) 6.4cm

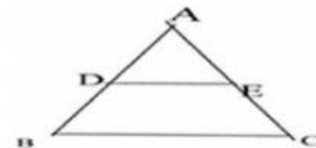


14. $\triangle ABC \sim \triangle PQR$, If $\frac{AB}{PQ} = \frac{AC}{PR}$ Then $\angle C = \dots\dots$

- A) $\angle P$ B) $\angle Q$ C) $\angle R$ D) $\angle B$

15. In $\triangle ABC$ $DE \parallel BC$, If $AD=3\text{cm}$, $BD=9\text{cm}$ and $AC=18\text{cm}$ the measure of AE

- A) 4cm B) 4.5cm C) 2.5cm D) 5cm



16. Which of the following type of triangles are always similar?

- A) Equivalent triangles B) Isosceles triangles
C) Scalene triangles D) Acute angled triangles

17. 'In two triangles, angle of one triangle is equal to corresponding angle of the other triangle and the sides having the equal corresponding angles are in the ratio, then two triangles are similar' the above statement represents.....

- A) SAS criterion of similarity of triangles
B) ASA criterion of similarity of triangles
C) AA criterion of similarity of triangles
D) None of the above

18. In a triangle, if square of one side is equal to the sum of squares of other two sides, then the angle opposite to the first side is a

- A) Acute angle B) Right angle C) Obtuse angle D) None of the above

19. Identify the sides of a right-angled triangle in the following set of numbers...

- A) 5, 6, 8 B) 6, 8, 10 C) 4, 5, 6 D) 9, 10, 12

20. In the figure $XY \parallel PR$ then $QR : QX = \dots\dots\dots$

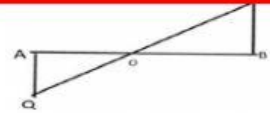
- A) $QP : YP$ B) $QY : YP$ C) $QP : QY$ D) $QY : QP$



21. In the figure QA and QB are perpendicular on AB, if AO=10cm

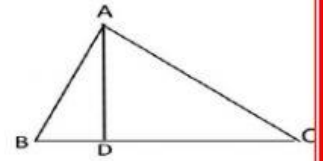
BO=6cm and PB=9cm then measure of AQ=

- A)15cm B)25cm C)10cm D)None of the above



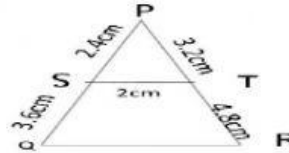
22. In the $\triangle ABC$, $\angle BAC = 90^\circ$ and $AD \perp BC$, then correct statement from the following is.....

- A) $BD \cdot CD = BC^2$ B) $AB \cdot AC = AC^2$ C) $BD \cdot CD = AD^2$
D) $AB \cdot AC = AD^2$



23. In the figure, the value of QR.....

- A) 4cm B) 5cm C) 6cm D) 8cm



24. If $2AB = DE$ and $BC = 8\text{cm}$ In similar triangles $\triangle ABC$ and $\triangle DEF$. then value of EF

- A) 12cm B) 4cm C) 16cm D) 8cm

25. In $\triangle ABC$, $AE = \frac{1}{4}AC$, $AB = 6\text{cm}$ and $DE \parallel BC$, then value of AD = ...

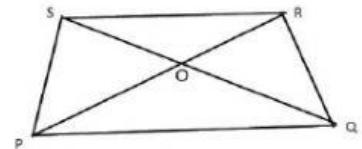
- A) 2cm B) 1.2cm C) 1.5cm D) 4cm

26. $\triangle ABC \sim \triangle DEF$, If $AB = 4\text{cm}$, $BC = 3.5\text{cm}$, $CA = 2.5\text{cm}$ and $DF = 7.5\text{cm}$, the perimeter of $\triangle DEF$ is....

- A) 10cm B) 14cm C) 30cm D) 25cm

27. The diagonals of the trapezium PQRS are intersecting each other at a point 'O'. If $PQ \parallel RS$ and $PQ = 3RS$ then the ratio of areas of $\triangle POQ$ and $\triangle ROS$ is.....

- A) 1:9 B) 9:1 C) 3:1 D) 1:3



28. In $\triangle ABC$, $DE \parallel BC$, If $AD = x$, $DB = x - 2$, $AE = x + 2$ and $EC = x - 1$ then the value of x

- A) 3 B) 4 C) 5 D) 3.5

29. If the perimeters of $\triangle ABC$ and $\triangle PQR$ is 60cm and 36cm respectively

and $PQ = 9\text{cm}$ the measure of AB is.....

- A) 6cm B) 10cm C) 15cm D) 24cm

30. The perimeters of two similar triangles are in the ratio 4:5, then the ratio of their corresponding areas is....

- A) 16:25 B) 2:5 C) 5:2 D) 25:16