



Grade 11

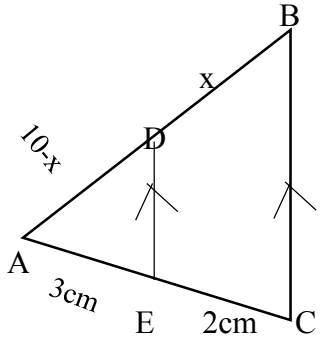
Mathematics

Second Term – Unit Test

12) Equiangular Triangles

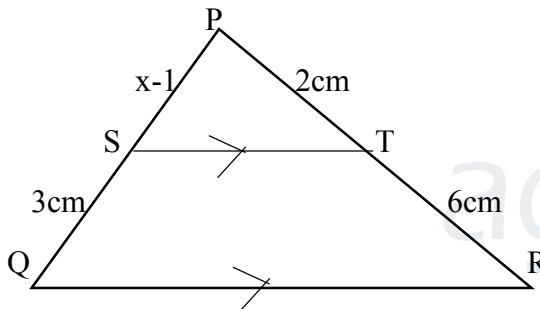
PART I

1.



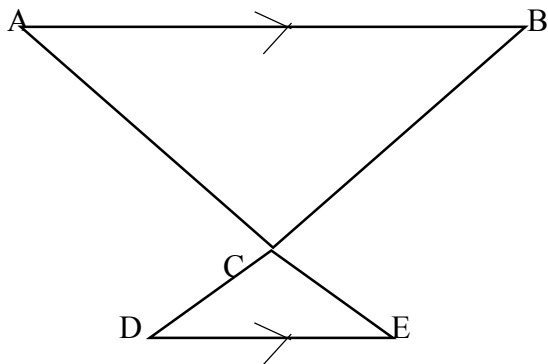
In the given diagram $BC \parallel DE$. Find the value of x .

2.



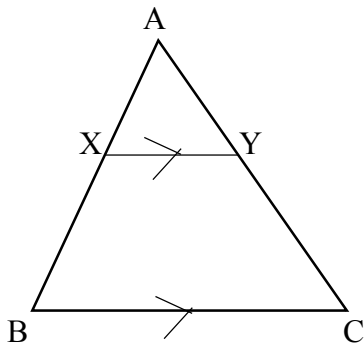
According to the data given in the figure, find the value of x .

3.



Show that triangles ABC and CDE are equiangular.

4.



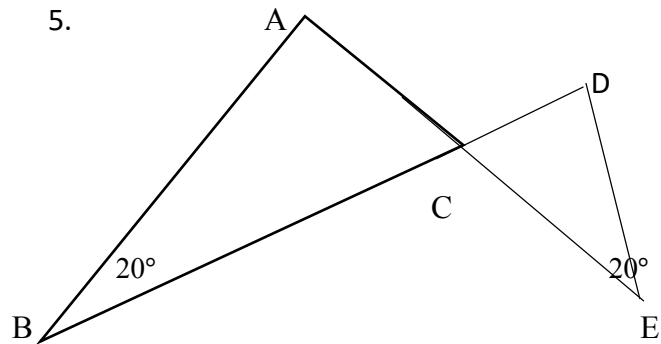
In the triangle ABC, the line XY is drawn parallel to the side BC

a) Show that the triangles ABC and AXY are equiangular



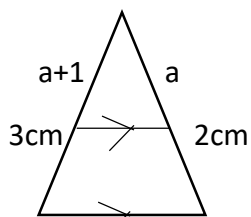
5.

Show that the triangles ABC and CDE are equiangular.



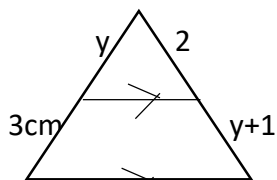
Find the value of a of the given figure.

6.



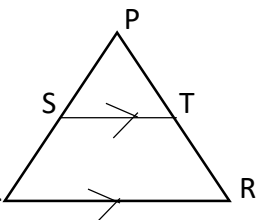
According to the data in the figure find the value of y.

7.



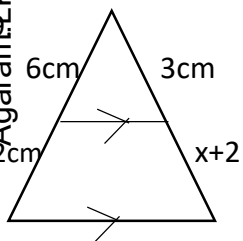
In the diagram $ST \parallel QR$, calculate the length of TR, if $PQ = 12\text{cm}$, $PS = 9\text{cm}$ and $PT = 5.1\text{cm}$.

8.



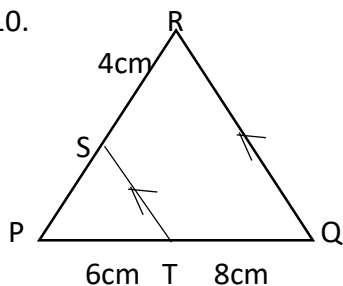
Find the value of x of the given figure.

9.



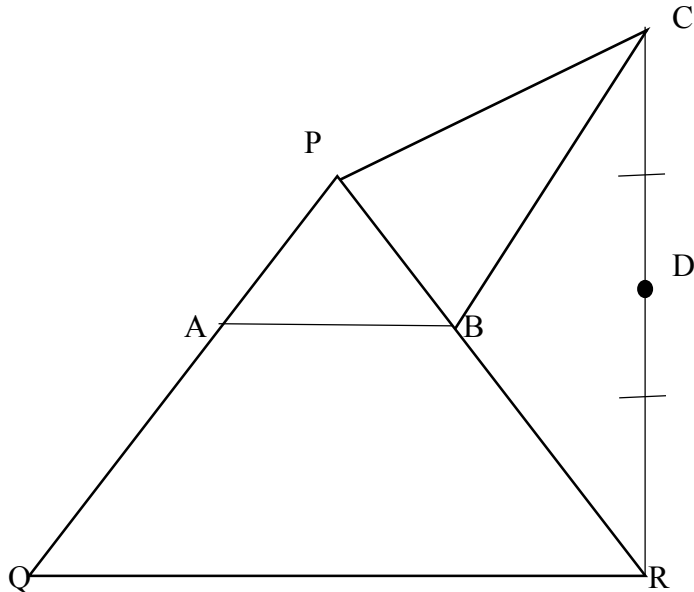
According to the data in the figure find the length of SP.

10.



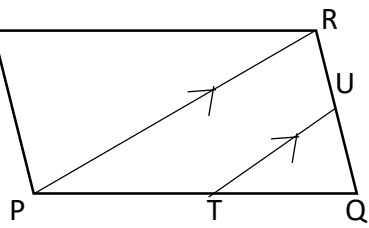


- 1) In the triangle PQR, A is the mid point of PQ the line drawn parallel to QR through A meets PR at B. Midpoint of CR is D and PQ parallel to CB

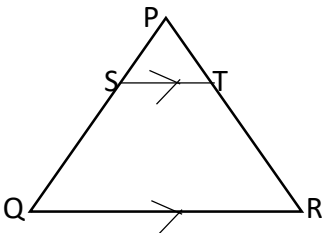


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- What is the relationship between PB and BR?
 - i. Write the relationship between the length of PC and BD.
 - ii. If $\hat{BAP} = \hat{BCP}$, Prove that triangles PAB and PBC are equiangular.
 - v. Show that $\frac{QR}{PC} = \frac{PQ}{PB}$.
- 2) PQRS is a parallelogram. According to the information in the figure, show that,
- i. Triangles PSR and UTQ are equiangular.
 - ii. $SR \cdot UT = PR \cdot TQ$



- 3) In the triangle PQR, $ST \parallel QR$.
- i. Show that triangles PST and PQR are equiangular.
 - ii. If, $ST = 4\text{cm}$, $QR = 16\text{cm}$, $SQ = 3\text{cm}$ and $TR = 8\text{cm}$, find the lengths of SP and PT.



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