NALANDA COLLEGE - COLOMBO 10

Grade 11

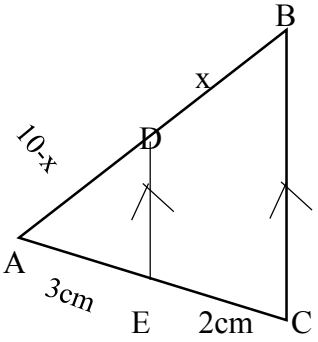
Mathematics

Second Term – Unit Test

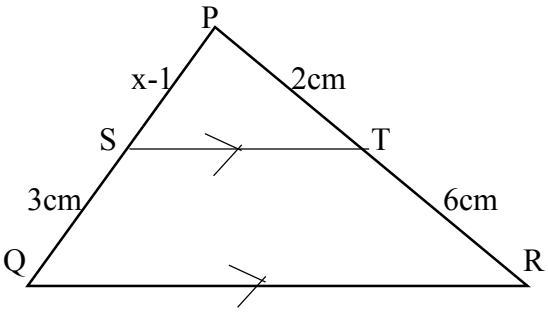
12) Equiangular Triangles

PART I

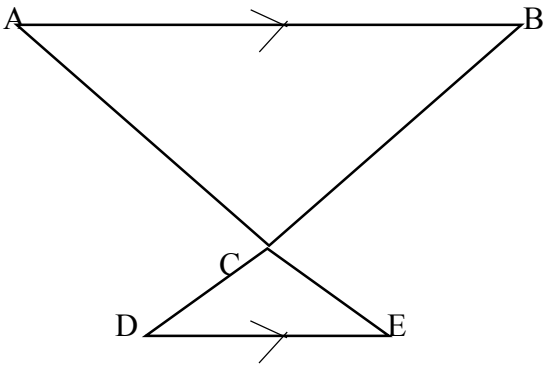
1. In the given diagram BC//DE. Find the value of x.



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

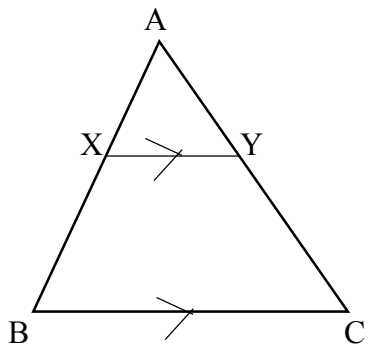


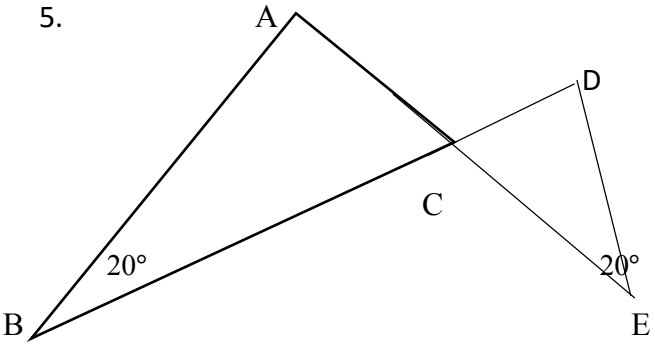
3. Show that triangles ABC and CDE are equiangular.



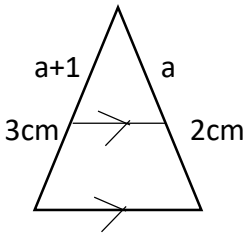
4. In the triangle ABC, the line XY is drawn parallel to the side BC

a) Show that the triangles ABC and AXY are equiangular

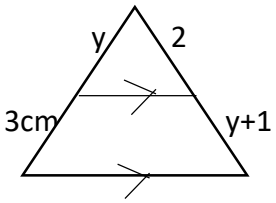


5. 

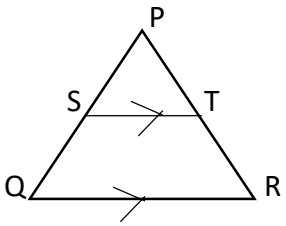
Show that the triangles ABC and CDE are equiangular.

6. 

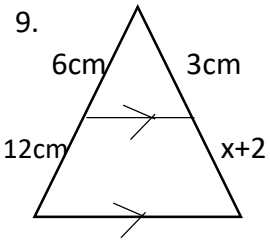
Find the value of a of the given figure.

7. 

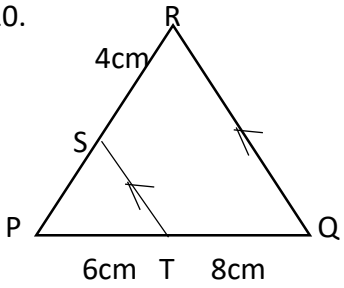
According to the data in the figure find the value of y.

8. 

In the diagram ST//QR, calculate the length of TR, if PQ = 12cm, PS = 9cm and PT = 5.1cm.

9. 

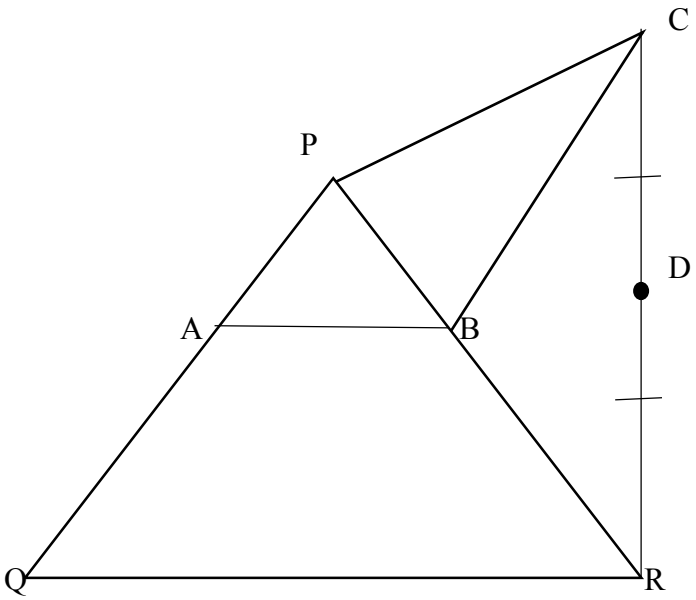
Find the value of x of the given figure.

10. 

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

Part II

1) In the traingle 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



i. What is the relationship between PB and BR?

ii. Write the relationship between the length of PC and BD.

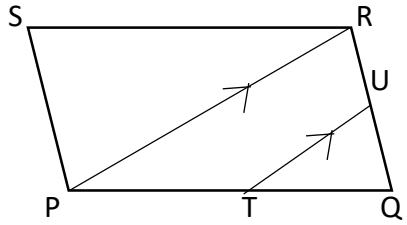
iii. If B$\hat{A}P = B\hat{P}C$, Prove that triangles PAB and PBC are equiangular.

iv. 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.UT = PR.TQ



3) In the triangle PQR, ST//QR.

i. Show that triangles PST and PQR are equiangular.

ii. If, ST = 4cm, QR=16cm, SQ = 3cm and TR = 8cm, find the lengths of SP and PT.