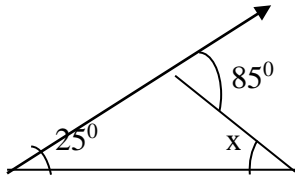
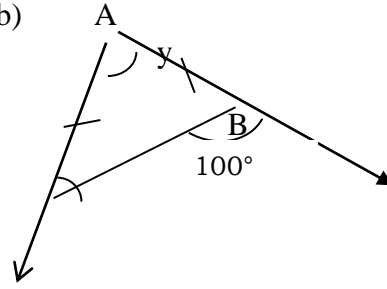


1. Find the values of  $x$  and  $y$  in the following figures:

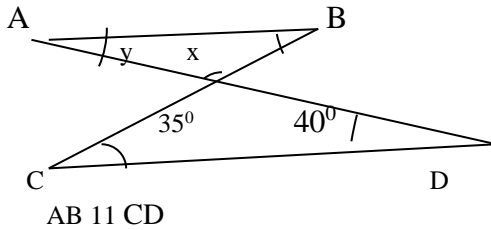
a)



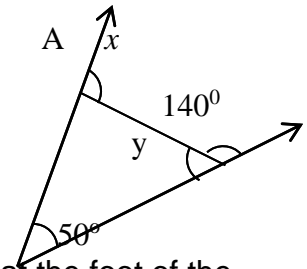
b)



c)



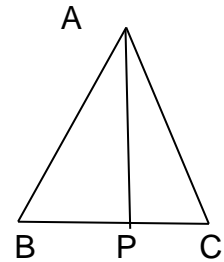
d)



2. A staircase 26m long is placed against a wall in such a way that the foot of the staircase is 10m away from the wall. Find how high the top of the staircase reaches on the wall.

3. A ship sails 3 km due north and then 4 km due east. How far is he away from his initial position?

4. In the adjoined figure, show that  $AP < \frac{1}{2}(AB + BC + AC)$ .



5. The hypotenuse of a right-angled triangle is 15 cm. One of its sides is 9 cm. What is the length of the other side?

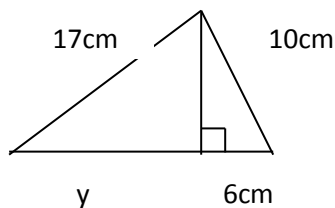
6. The sides of a rectangle are 6 cm and 8 cm respectively. Find the length of the diagonal.

7. Solve:

a. In a triangle ABC,  $\angle A = 60^\circ$  and  $\angle C = 45^\circ$ . Find the measure of  $\angle B$

b. Determine whether the triangle whose sides are 3 cm, 6 cm and 5 cm is a right angle triangle.

8. Find the length marked  $y$  in the figure.

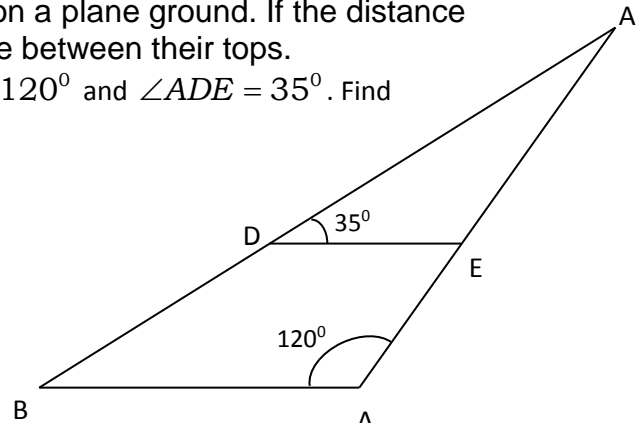


9. A ladder 15m reached a window which is 9m above the ground on one side of a street. Keeping its foot at the same point, the ladder turned to the other side of the street to reach a window 12m high. Find the width of the street.

10. Two poles of heights 6m and 11m stand on a plane ground. If the distance between their feet is 12m, find the distance between their tops.

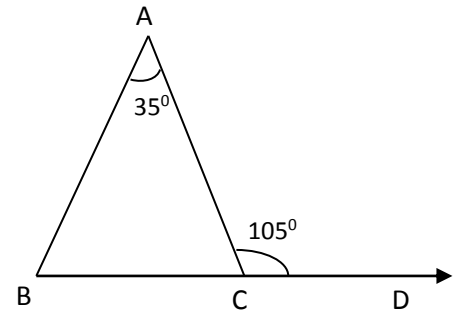
11. 24. In  $\triangle ABC$ ,  $DE \parallel BC$ ,  $\angle ACB = 120^\circ$  and  $\angle ADE = 35^\circ$ . Find

$\angle ABC$ ,  $\angle BAC$  and  $\angle AED$ .



12. Find the measure:

a) An exterior angle of a triangle is  $105^\circ$ . If one of the interior opposite angles is  $35^\circ$ , find the other two angles of a triangle.



b) In a right angled triangle, two of the sides are of lengths 5 cm and 12 cm. Find the length of its hypotenuse

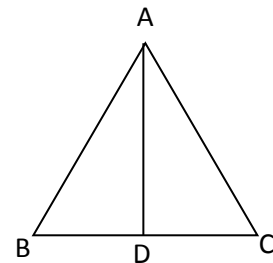
13.  $AD$  is a median of  $\triangle ABC$ . Using the symbols  $<$ ,  $=$  or  $>$  to make the following statements true:

a)  $AB + AC \square BC$

b)  $BC + AC \square AB$

c)  $AC \square AD + DC$

d)  $BD \square DC$



-----End-----

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