

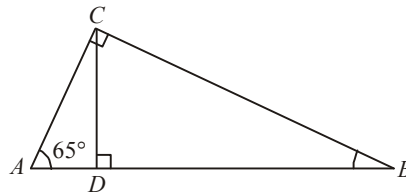
## Chapter 12 : The Triangle and Its Properties

**ASSESSMENT**  
Max.Marks : 20

**A : Choose the correct alternatives in each of the following :**

(1 × 5 = 5)

- In  $\triangle ABC$ , the side opposite to  $\angle B$  is  
 (a)  $AB$  (b)  $BC$  (c)  $CA$  (d) none of these
- If the angles of a triangle are in the ratio 3 : 4 : 5, the measure of smallest angle is  
 (a)  $45^\circ$  (b)  $60^\circ$  (c)  $75^\circ$  (d)  $55^\circ$
- In a right angled triangle  $ABC$ ,  $AC^2 = AB^2 + BC^2$ . The hypotenuse of the triangle is  
 (a)  $AB$  (b)  $BC$  (c)  $AC$  (d) none of these
- Exterior angle of a triangle and its adjacent interior angle are  
 (a) equal (b) complementary (c) supplementary (d) none of these
- In  $\triangle ABC$ ,  $\angle C = 90^\circ$  and  $CD \perp AB$ . Also,  $\angle A = 65^\circ$ . Then  $\angle ACD$  is equal to

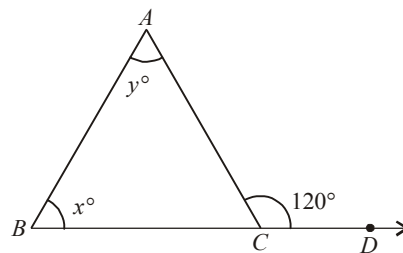


- (a)  $75^\circ$  (b)  $115^\circ$  (c)  $25^\circ$  (d)  $105^\circ$

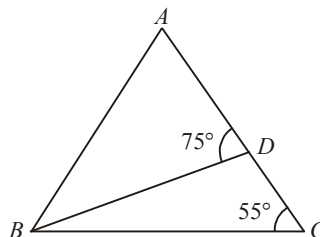
**B : Solve the following :**

(3 × 5 = 15)

- The square of the hypotenuse of an isosceles right angled triangle is 2 m. Measure the other two sides of the triangle.
- Two buildings of heights 26 m and 14 m are exactly on the opposite side of a road. If the distance between their tops is 15 m, find the width of the road.
- In the adjacent figure,  $x : y = 3 : 5$  and  $\angle ACD = 120^\circ$ . Find the values of  $x$  and  $y$ .



4. In the given figure, find  $\angle CBD$ . Also, if  $\angle A = 2\angle ABD$ , find  $\angle ABD$  and  $\angle A$ .



5. A man walks 3 km North and then 4 km East. How far is he now from the initial position?