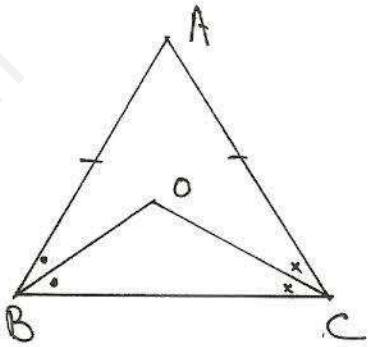
VII- Mathematics Assignment No-04 - Δ and its Properties.

Q1. In a right angled Δ, one of the acute angles is half of the other. Find the third angle.

Q2. Angles of a Δ are in the ratio 5:6:7 Find the greatest and the smallest.

Q3. In Δ ABC, BO and CO are the angle bisectors of ∠B and ∠C also AB = AC, ∠BAC = 80°

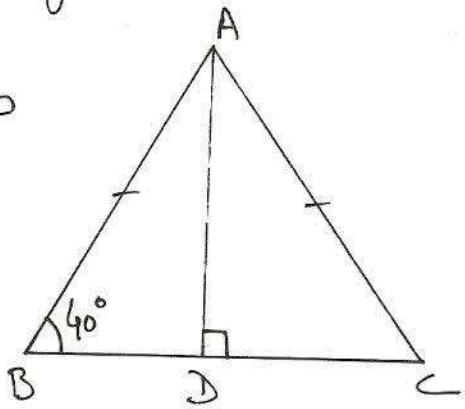


Find (i) ∠ABC and ∠ACB

(ii) ∠BOC

(iii) ∠OCB

Q4. From the adjoining figure in which AB = AC, AD ⊥ BC BC = 4cm and ∠ABC = 40°



Find

(i) ∠ACB

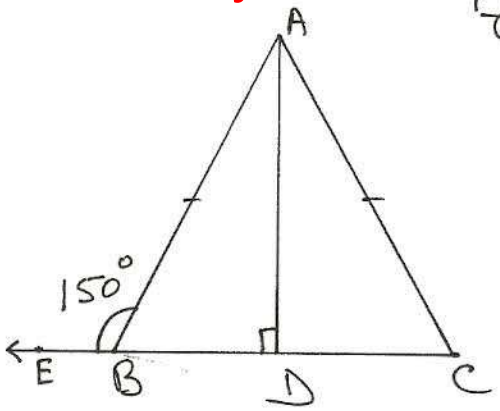
(ii) ∠BAC

(iii) $\overline{BD}$

Cont-Pg-2

Q5. In this figure, ABC is an isosceles Δ in which AB = AC

Ext ∠ABE = 150° and AD ⊥ BC



Find (i) ∠BAD (ii) ∠BAC

Q6. The length of two sides of a right angled Δ are 3 Cm and 4 Cm respectively. Find the length of its hypotenuse.

Q7. The square of hypotenuse of a right angled Δ is 80 cm and one side is half the other. Find the length of two sides.

Q8. Two poles of heights 23 m and 15 m stand parallel to each other at a distance of 15 m. Find the distance between their tops

ANSWERS:

(Q1) 90°	(Q4) (i) 40°	(Q6) 5 Cm
(Q2) 70°, 50°	(ii) 100°	(Q7) 8 cm, 4 cm
(Q3) (i) 50°, 150°	(iii) 2 Cm	(Q8) 17 m
(ii) 130°	(Q5) (i) 60°	
(iii) 25°	(ii) 120°	