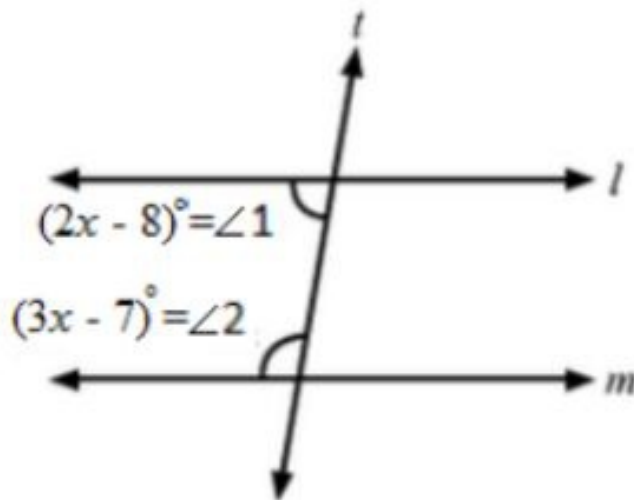




### Exercise 14A



Q4

**Answer :**

From the given figure:

$$\angle 1 = \angle 3 = 50^\circ \text{ (corresponding angles)}$$

$$\text{and } \angle 1 + x^\circ = 180^\circ \text{ (linear pair)}$$

$$\text{or } x^\circ = 180^\circ - 50^\circ = 130^\circ$$

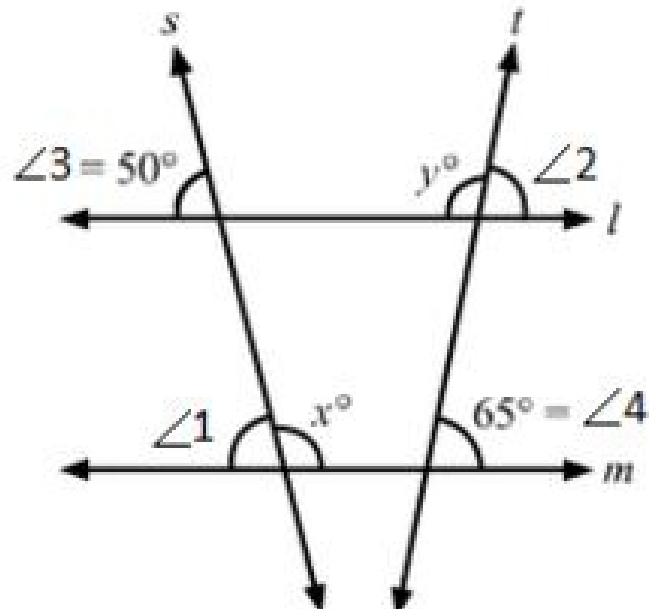
$$\text{or } x = 130$$

$$\angle 2 = \angle 4 = 65^\circ \text{ (corresponding angles)}$$

$$\text{and } \angle 2 + y^\circ = 180^\circ \text{ (linear pair)}$$

$$\text{or } y^\circ = 180^\circ - 65^\circ = 115^\circ$$

$$\text{or } y = 115$$



Q5

**Answer :**

**Given :**

$$\angle B = 65^\circ$$

$$\angle C = 45^\circ$$

**DAE  $\parallel$  BC**

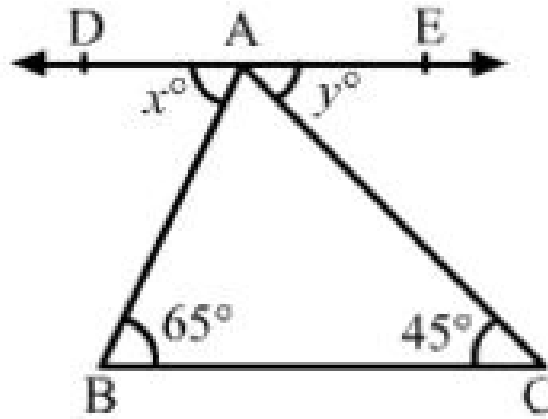
**The given lines are parallel.**

$$\therefore x^\circ = \angle B = 65^\circ \quad (\text{alternate angles when AB is taken as the transversal})$$

$$y^\circ = \angle C = 45^\circ \quad (\text{alternate angles when AC is taken as the transversal})$$

$$\therefore x = 65$$

$$y = 45$$



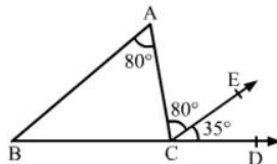
Q6

**Answer :**

**Given :  $CE \parallel BA$**

**$\angle BAC = 80^\circ$ ,  $\angle ECD = 35^\circ$**

- (i)  $\angle BAC = \angle ACE = 80^\circ$  (alternate angles with AC as a transversal)  
 (ii)  $\angle ACB + \angle ACD = 180^\circ$  (linear pair)  
 or  $\angle ACB + \angle ACE + \angle ECD = 180^\circ$   
 or  $\angle ACB + 80^\circ + 35^\circ = 180^\circ$   
 or  $\angle ACB = 65^\circ$   
 (iii) In  $\triangle ABC$  :  
 $\angle BAC + \angle ACB + \angle ABC = 180^\circ$  (angle sum property)  
 $80^\circ + 65^\circ + \angle ABC = 180^\circ$   
 $\angle ABC = 35^\circ$



Q7

**Answer :**

**Given :  $AO \parallel CD$**

**$OB \parallel CE$**

**$\angle AOB = 50^\circ$**

**$\angle AOD = \angle CDB = 50^\circ$**  (when  $AO \parallel CD$  and OB is the transversal)

**$\angle ECD + \angle CDB = 180^\circ$**  (consecutive interior angles are supplementary, DB

**$\parallel CE$  and  $CD$  is the transversal)**

**$\angle ECD = 180^\circ - 50^\circ = 130^\circ$**

\*\*\*\*\* END \*\*\*\*\*