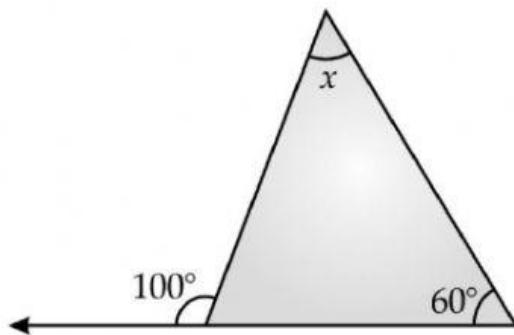


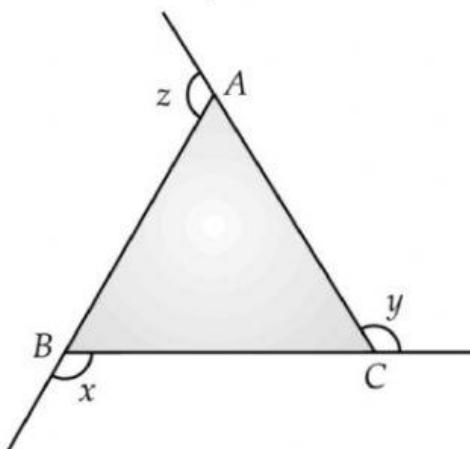
# Concept\_Grade-9\_Lines and Angles

## Triangle

1. An exterior angle of a triangle is  $80^\circ$  and two interior opposite angles are equal. What will be the measure of each?
2. What is the value of  $x$  in the figure given below ?

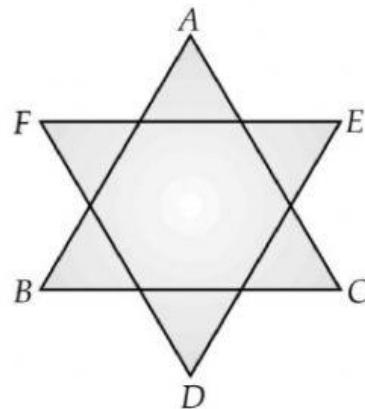


3. In the figure below, if  $x$ ,  $y$  and  $z$  are exterior angles of  $\triangle ABC$ , then calculate the value of  $x + y + z$ .

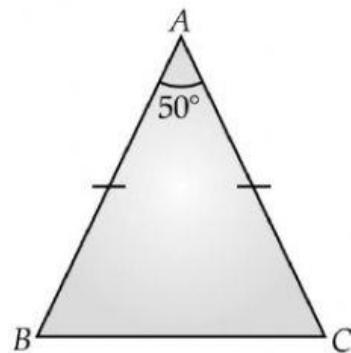


4. In  $\triangle ABC$ ,  $\angle A = \angle B/2 = \angle C/6$ , then what will be the measure of  $\angle A$ ?

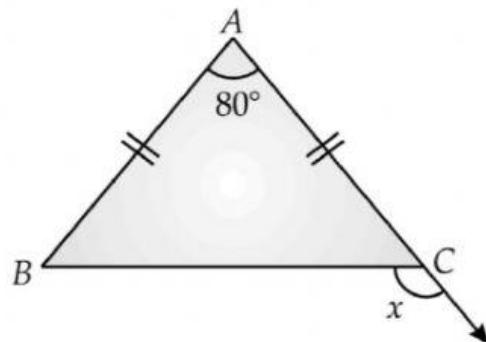
5. In the figure below, if  $\angle A + \angle B + \angle C + \angle D + \angle E + \angle F = k$  right angles, then what is the value of  $k$  ?



6. In the given figure, ABC is an isosceles triangle with  $AB = AC$  and  $\angle A = 50^\circ$ . Calculate  $\angle B$



7. In the fig. below, in  $\triangle ABC$ ,  $AB = AC$ , then calculate the value of  $x$ .



8. In  $\triangle ABC$ ,  $\angle A + \angle B = 65^\circ$  and  $\angle B + \angle C = 140^\circ$ , find the value of  $\angle B$  and  $\angle C$

9. In figure,  $PQ \perp PR$ ,  $QP \parallel RL$ ,  $\angle RQT = 38^\circ$  and  $\angle QTL = 75^\circ$ . Find  $x$  and  $y$
  
10. In  $\triangle ABC$ , if  $\angle A = (2x - 5^\circ)$ ,  $\angle B = (5x + 5^\circ)$ ,  $\angle C = (3x + 50^\circ)$ , then find the value of  $x$ ,  $\angle A$ ,  $\angle B$  and  $\angle C$ .