

# MATHEMATICS

Class-7th

Chapter-6

The Triangle and  
its properties

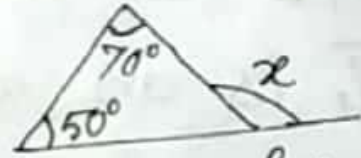
Solution of  
Exercise-6.2

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Mathematics  
class - VII    Ch - 06. Triangle and its properties  
"Ex - 6.2"

Q.1. Value of  $x$  in the following diagrams:

(i) Exterior angle

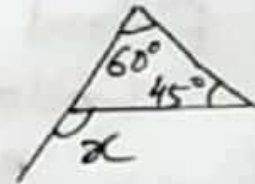


= sum of interior opp. angles.

$$\Rightarrow x = (70 + 50)^\circ$$

$$\Rightarrow \underline{x = 120^\circ}$$

(ii) Exterior angle



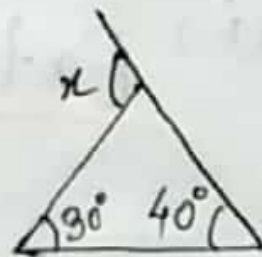
= sum of interior opp. angles

$$\Rightarrow x = (60 + 45)^\circ$$

$$\Rightarrow \underline{x = 105^\circ}$$

(iii)

Exterior angle

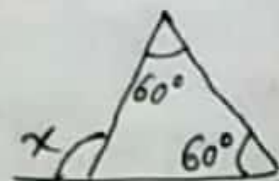


= sum of interior opp. angles.

$$\Rightarrow x = (30 + 40)^\circ$$

$$\Rightarrow \underline{x = 70^\circ}$$

(iv) Exterior angle



= sum of interior opp. angles.

$$\Rightarrow x = (60 + 60)^\circ$$

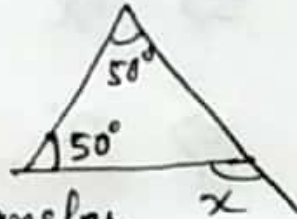
$$\Rightarrow \underline{x = 120^\circ}$$

(v) Exterior angle

= Sum of interior opp. angles.

$$\Rightarrow x = (50 + 50)^\circ$$

$$\Rightarrow \underline{x = 100^\circ}$$

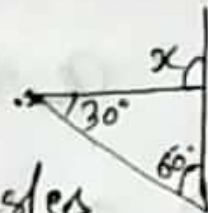


(vi) Exterior angle

= Sum of interior opp. angles

$$\Rightarrow x = (30 + 60)^\circ$$

$$\Rightarrow \underline{x = 90^\circ}$$



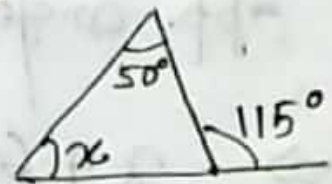
Q.2. Find the value of  $x$ .

(i) Sum of interior opp. angles = Exterior angle

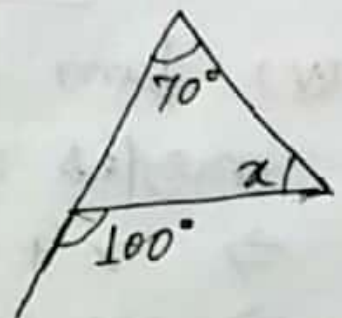
$$\Rightarrow x + 50^\circ = 115^\circ$$

$$\Rightarrow x = (115 - 50)^\circ$$

$$\Rightarrow \underline{x = 65^\circ}$$



(ii) Sum of interior opp. angles = Exterior angle.





$$\Rightarrow (x + 70^\circ) = 100^\circ$$

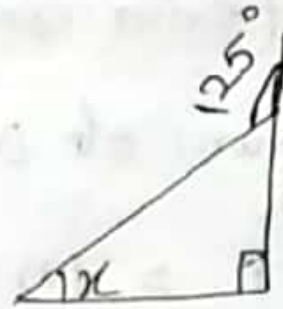
$$\Rightarrow x = (100 - 70)^\circ$$

$$\Rightarrow \underline{x = 30^\circ}$$

(iii)

Sum of interior opp.

angles = Exterior angle



$$\Rightarrow x + 90^\circ = 125^\circ$$

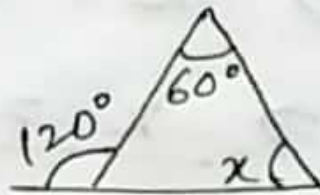
$$\Rightarrow x = (125 - 90)^\circ$$

$$\Rightarrow \underline{x = 35^\circ}$$

(iv)

Sum of interior

opp. angles = Exterior angle



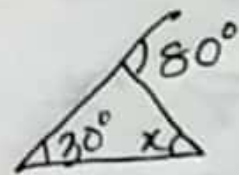
$$\Rightarrow x + 60^\circ = 120^\circ$$

$$\Rightarrow x = (120 - 60)^\circ$$

$$\Rightarrow \underline{x = 60^\circ}$$

(v)

Sum of interior opp.  
angles = Exterior angle



$$\Rightarrow x + 30^\circ = 80^\circ$$

$$\Rightarrow \underline{x = (80 - 30)^\circ = 50^\circ} \therefore \underline{x = 50^\circ}$$