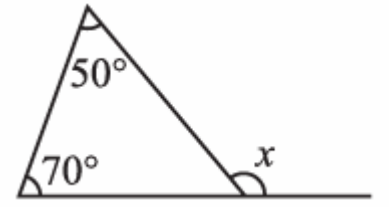
## Access answers to Maths NCERT Solutions for Class 7 Chapter 6 – The Triangle and its Properties Exercise 6.2

**1. Find the value of the unknown exterior angle x in the following diagram:**

**(i)**




**Solution:-**

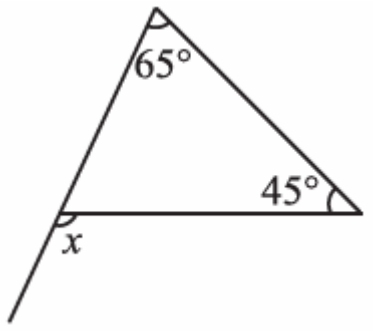
We Know That,

An exterior angle of a triangle is equal to the sum of its interior opposite angles.

= x = $50^o + 70^o$

= x = $120^o$

**(ii)**




**Solution:-**

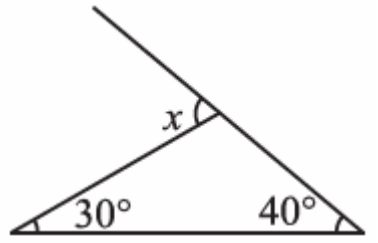
We Know That,

An exterior angle of a triangle is equal to the sum of its interior opposite angles.

= x = $65^o + 45^o$

= x = $110^o$

**(iii)**




**Solution:-**

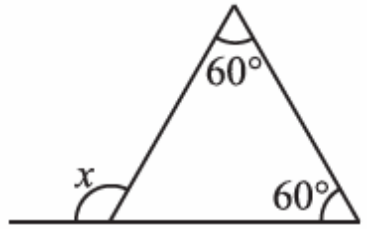
We Know That,

An exterior angle of a triangle is equal to the sum of its interior opposite angles.

= x = $30^o + 40^o$

= x = $70^o$

**(iv)**




**Solution:-**

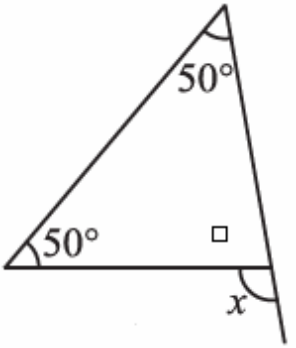
We Know That,

An exterior angle of a triangle is equal to the sum of its interior opposite angles.

$= x = 60^o + 60^o$

$= x = 120^o$

**(v)**




**Solution:-**

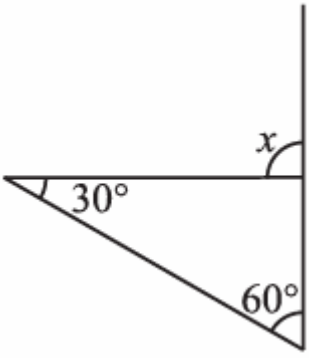
We Know That,

An exterior angle of a triangle is equal to the sum of its interior opposite angles.

$= x = 50^o + 50^o$

$= x = 100^o$

**(vi)**




**Solution:-**

We Know That,

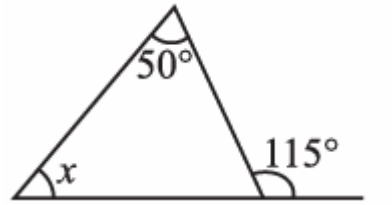
An exterior angle of a triangle is equal to the sum of its interior opposite angles.

$= x = 30^o + 60^o$

$= x = 90^o$

**2. Find the value of the unknown interior angle x in the following figures:**

**(i)**




**Solution:-**

We Know That,

An exterior angle of a triangle is equal to the sum of its interior opposite angles.

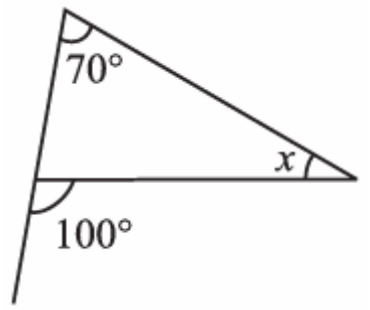
$= x + 50^o = 115^o$

By transposing $50^o$ from LHS to RHS it becomes $– 50^o$

$= x = 115^o – 50^o$

$= x = 65^o$

**(ii)**




**Solution:-**

We Know That,

An exterior angle of a triangle is equal to the sum of its interior opposite angles.

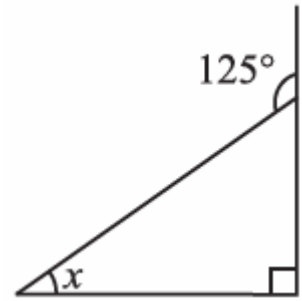
$= 70^o + x = 100^o$

By transposing $70^o$ from LHS to RHS it becomes $– 70^o$

$= x = 100^o – 70^o$

$= x = 30^o$

**(iii)**




**Solution:-**

We Know That,

An exterior angle of a triangle is equal to the sum of its interior opposite angles.

The given triangle is a right angled triangle. So the angle opposite to the x is $90^o$.

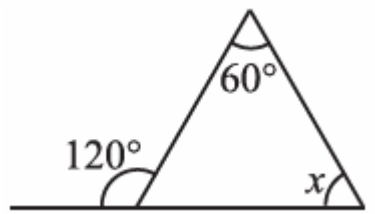
$= x + 90^o = 125^o$

By transposing $90^o$ from LHS to RHS it becomes $– 90^o$

$= x = 125^o – 90^o$

$= x = 35^o$

**(iv)**




**Solution:-**

We Know That,

An exterior angle of a triangle is equal to the sum of its interior opposite angles.

The given triangle is a right angled triangle. So the angle opposite to the x is $90^o$.

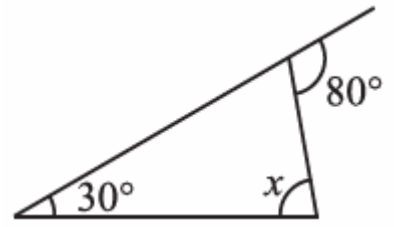
$= x + 60^o = 120^o$

By transposing $60^o$ from LHS to RHS it becomes $– 60^o$

$= x = 120^o – 60^o$

$= x = 60^o$

**(v)**




**Solution:-**

We Know That,

An exterior angle of a triangle is equal to the sum of its interior opposite angles.

The given triangle is a right angled triangle. So the angle opposite to the x is $90^o$.

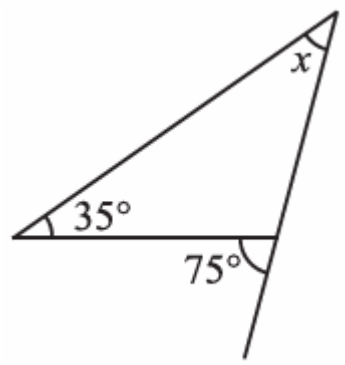
$= x + 30^o = 80^o$

By transposing $30^o$ from LHS to RHS it becomes $– 30^o$

$= x = 80^o – 30^o$

$= x = 50^o$

**(vi)**




**Solution:-**

We Know That,

An exterior angle of a triangle is equal to the sum of its interior opposite angles.

The given triangle is a right angled triangle. So the angle opposite to the x is $90^{o}$.

$= x + 35^{o} = 75^{o}$

By transposing $35^{o}$ from LHS to RHS it becomes $– 35^{o}$

$= x = 75^{o} – 35^{o}$

$= x = 40^{o}$