

*Namaskar ☺ I hope everyone is staying safe and utilising their time wisely.*


*All notes, shapes, examples and activities must be copied and completed in your exercise book.*

**CALCULATING ANGLES**

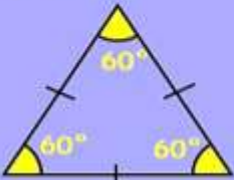
Reminders:

- ❖ The sum of angles (total angles) in a triangle is equal to  $180^\circ$

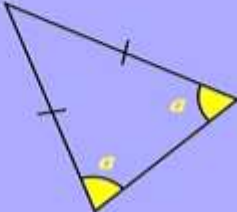
A triangle has 3 sides and 3 angles




The angles and sides of this triangle are all different. It is a **scalene** triangle.

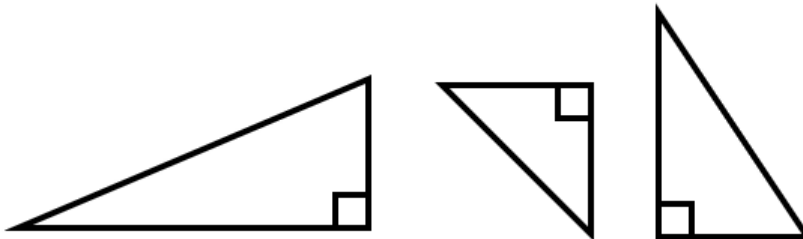
$$a + b + c = 180^\circ$$


**Equilateral** triangles have 3 equal sides and 3 equal angles.



**Isosceles** triangles have 2 equal sides and 2 equal angles.

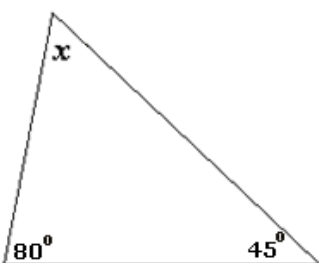
- ❖ In a right-angled triangle, one of the angles is  $90^\circ$  and is clearly shown by this symbol 
- Eg.



- ❖ The sum of angles on a straight line is equal to  $180^\circ$



Example: Calculate the missing angle in the given triangle.



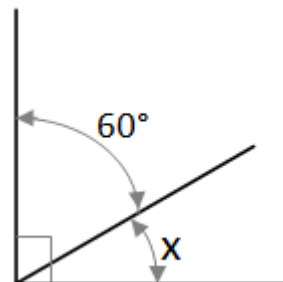
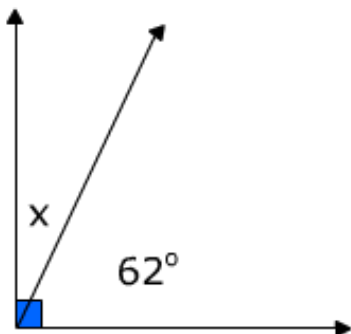
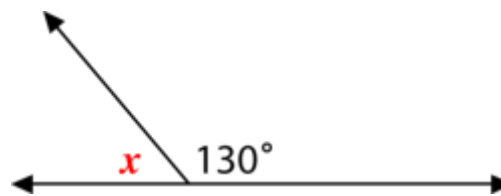
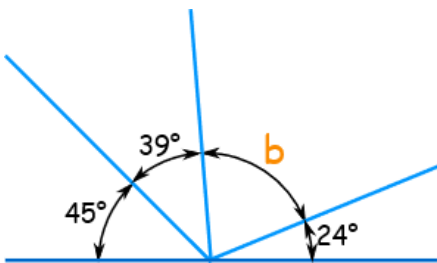
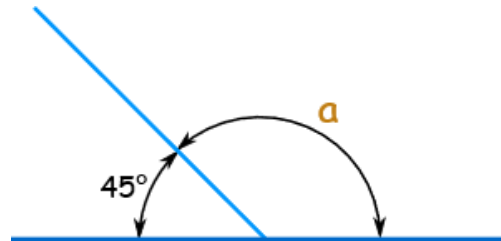
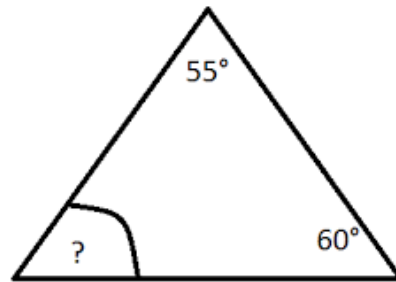
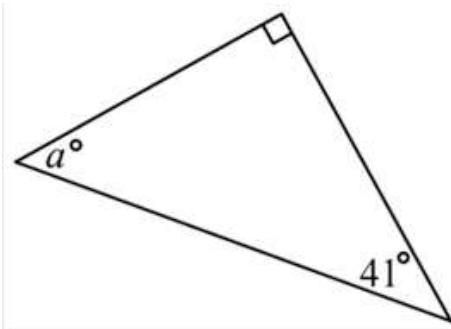
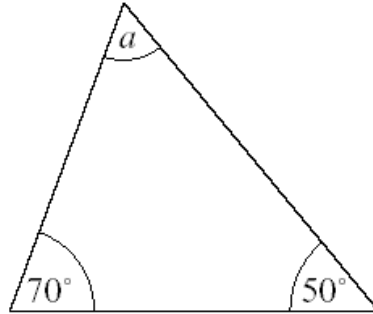
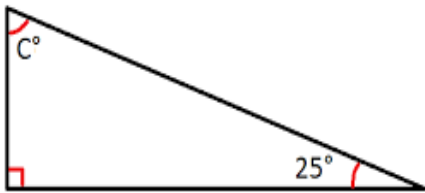
$$80 + 45 = 125$$

Since the sum of angles in a triangle is  $180^\circ$ , the remaining degrees will be the value of x.

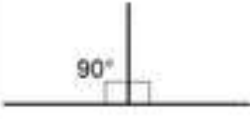
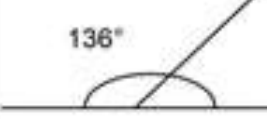
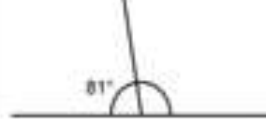
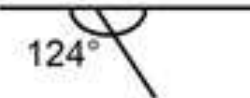
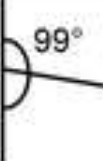


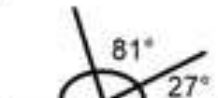





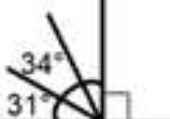
$$180 - 125 = 55^\circ$$

$$x = 55^\circ$$

**Activity 1:** Find the value of the missing angle. Show all workings.



Activity 2: Calculate the missing angles. Show all workings.

<p>1) The angles on a straight line add up to.....</p>	<p>2)</p> 	<p>3)</p> 	<p>4)</p> 
<p>5)</p> 	<p>6)</p> 	<p>7)</p> 	<p>8)</p> 
<p>9)</p> 	<p>10)</p> 	<p>11)</p> 	<p>12)</p> 
<p>13)</p> 	<p>14)</p> 	<p>15)</p> 	<p>16)</p> 