

Triangles



Exercise 15 (A)

1. i) Sum of 20° , 70° and 90° is 180°

Hence, it is possible.

ii) Sum of 40° , 130° and 20° is ~~180°~~ 190°

Hence it is ^{not} possible.

iii) 60° , 60° and 50° sum is 170°

Therefore it is not possible.

iv) 125° , 40° and 15° sum is 180°

Therefore it is possible.

2. Since the three angles of a triangle are equal and their sum is 180°

Therefore each angle will be $\frac{180^\circ}{3} = 60^\circ$

3. Since the sum of angles of a triangle is 180° .

$$\angle A + \angle B + \angle C = 180^\circ$$

$$\Rightarrow 45^\circ + 75^\circ + \angle C = 180^\circ$$

$$\Rightarrow 120^\circ + \angle C = 180^\circ$$

$$\Rightarrow \angle C = 180^\circ - 120^\circ = 60^\circ$$