

# ASSIGNMENT-4

SENANI SADHU

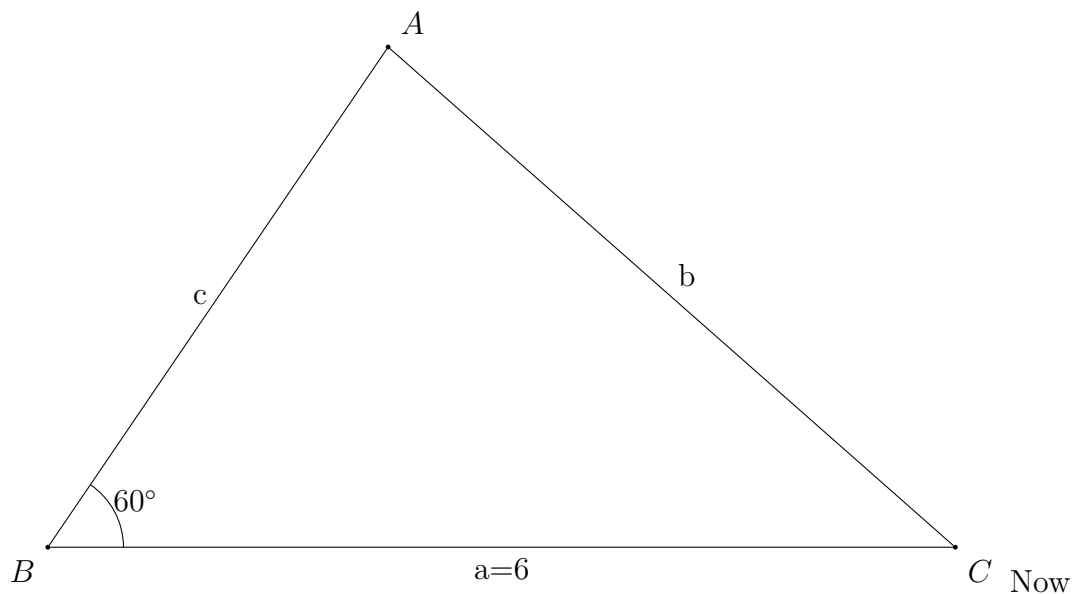
January 19, 2021

## 1 Question:-

In  $\triangle ABC$ ,  $a=6$ ,  $\angle B = 60^\circ$  and  $b-c=2$ . sketch the triangle.

## 2 Solution:-

Given,  $a=6$ ,  $\angle B = 60^\circ$  and  $b-c=2$ .



we know that,  
Using law of cosines

$$\cos B = \frac{c^2 + a^2 - b^2}{2ac}$$

Therefore,  $\cos 60^\circ =$

$$\frac{c^2 + 36 - b^2}{2(6)c}$$

$$6c = c^2 + 36 - c^2 - 4c$$

$$6c + 4c = 32$$

$$c = 3.2, b = c + 2 = 5.2$$

## 2.1 Output of Python code:-

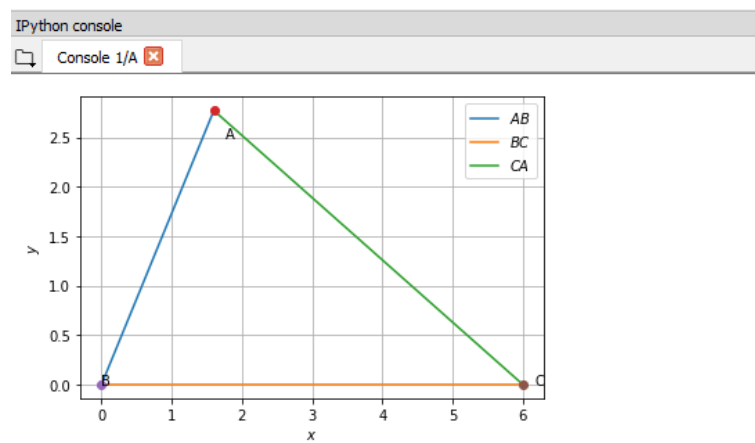


Figure 1: Fig generated using python