

ASSIGNMENT-4

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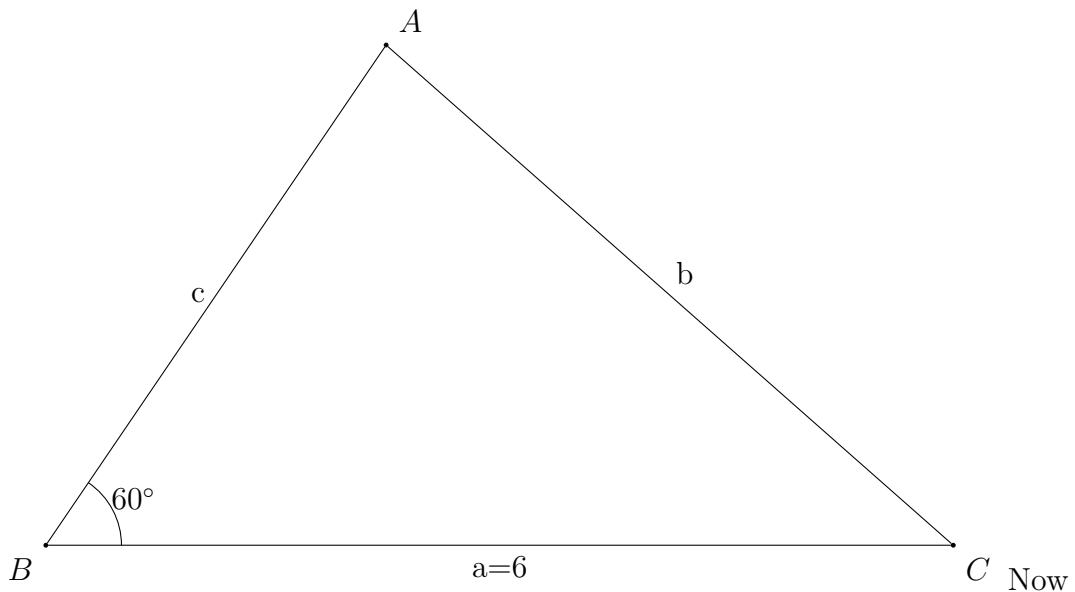
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1 Question:-

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

Let $x=b^2+a^2-c^2$

and $y=2(a)(c)$

Therefore, $\cos 60^\circ = \frac{x}{y}$

$$\frac{1}{2} = \frac{x}{y}$$

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

$$6c+4c=32$$

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

2.1 Output of Python code:-

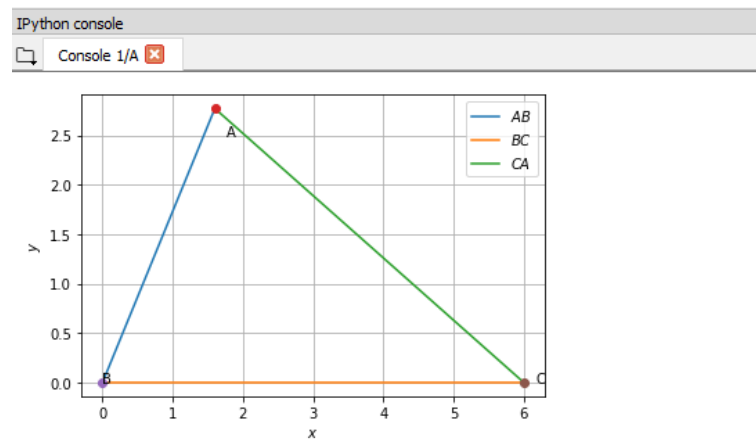


Figure 1: Fig generated using python