

ASSIGNMENT-5

SENANI SADHU

January 19, 2021

1 Construct right angled Δ whose hypotenuse is 6 and one of the legs is 4.

1.1 Solution:-

Given, Hypotenuse=6 , Side=4

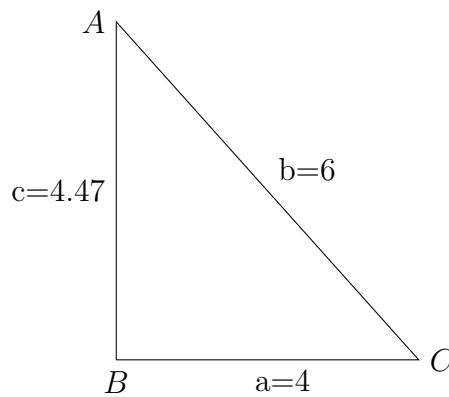
Let the triangle be ΔABC with $\angle B=90^\circ$ $AC=b=6, BC=a=4$

Using Pythagoras Theorem:

$$AC^2 = BC^2 + AB^2$$

$$b^2 = a^2 + c^2$$

$$c = 4.47$$



ΔABC is required triangle.

1.2 Output of Python code:

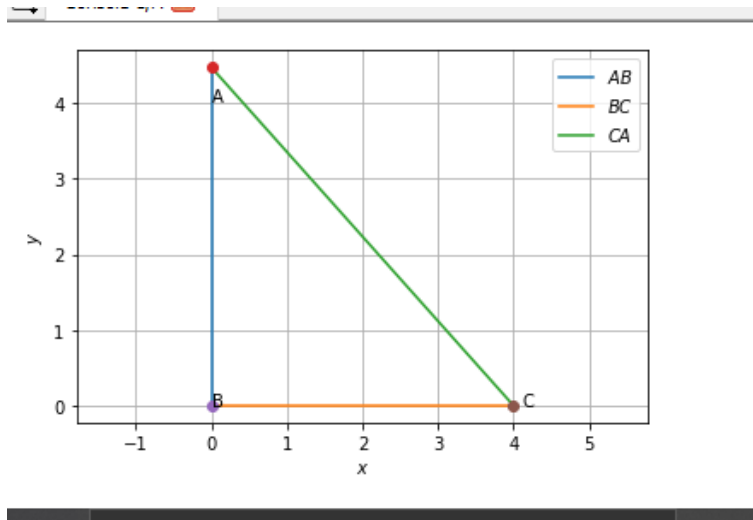


Figure 1: Fig generated using python

2 Construct an isosceles right angled $\triangle ABC$ right angled at C such $AC = 6$.

2.1 Solution:-

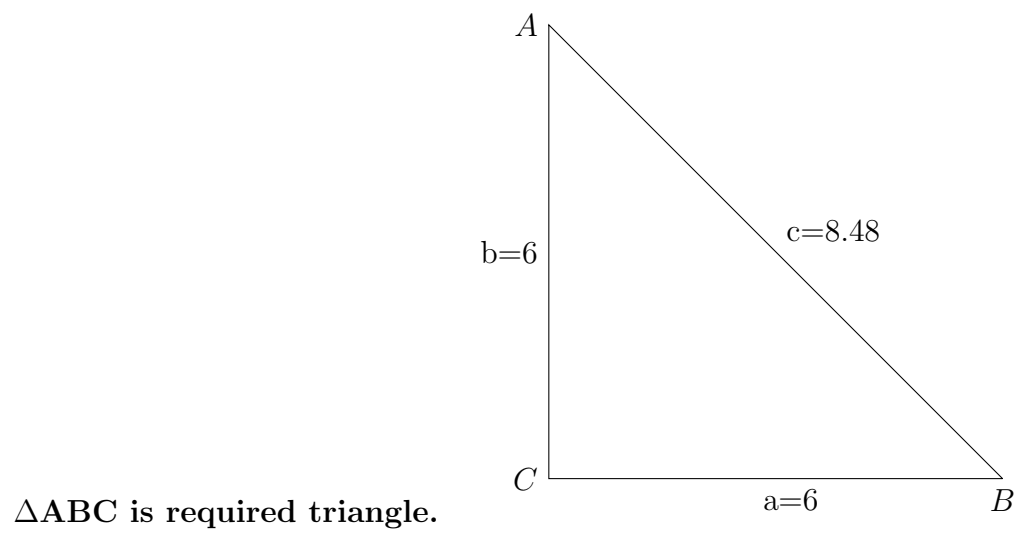
Given $\triangle ABC$ isosceles right angled \triangle at C such that $AC=b=6$, therefore ,
 $BC=a=6$

Thus using Pyth. Theorem:

$$AB^2 = BC^2 + AC^2$$

$$c^2 = a^2 + b^2$$

$$c = 8.48$$



2.2 Output of Python code:-

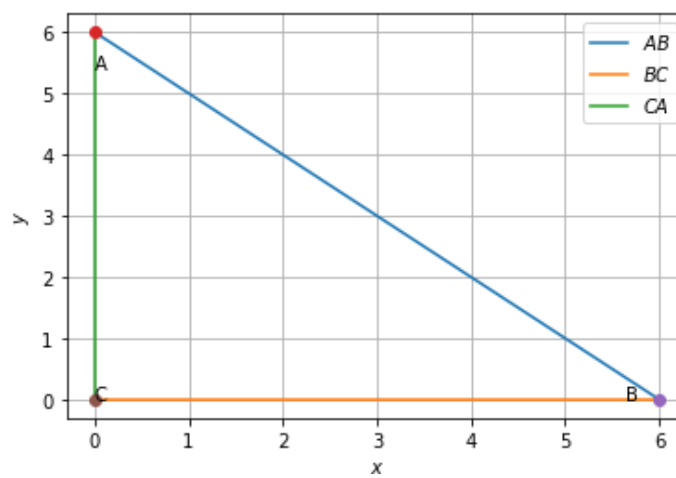


Figure 2: Fig generated using python