

ASSIGNMENT-1

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Download all python codes from

<https://github.com/ThurpuNaveena/Assignment-1/blob/main/ASSIGNMENT1/assignment1.py>

and latex-tikz codes from

<https://github.com/ThurpuNaveena/Assignment-1/blob/main/ASSIGNMENT1/main.tex>

1 QUESTION NO-2.2

Construct an isosceles triangle whose base is $a = 8\text{cm}$ and altitude $AD = h = 4\text{cm}$.

2 SOLUTION

Let $\triangle ABC$ be the isosceles triangle

Base $BC = 8$ and Altitude $AD = 4$

AD is the perpendicular bisector of BC

$$a = 8, h = 4 \quad (2.0.1)$$

$$b = c \quad (2.0.2)$$

$$AB = AC \quad (2.0.3)$$

Two sides are equal so $\triangle ABC$ is isosceles triangle
plot of the isosceles triangle $\triangle ABC$

$$\mathbf{A} = \begin{pmatrix} a/2 \\ h \end{pmatrix} = \begin{pmatrix} 4 \\ 4 \end{pmatrix}, \mathbf{B} = \begin{pmatrix} 0 \\ 0 \end{pmatrix}, \mathbf{C} = \begin{pmatrix} 8 \\ 0 \end{pmatrix} \quad (2.0.4)$$

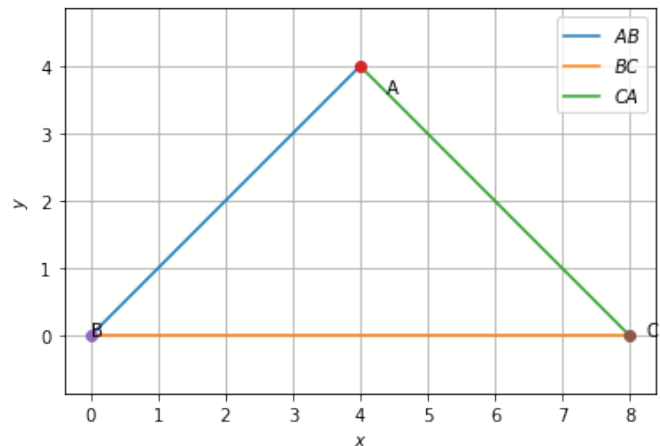


Fig. 2.1: isosceles triangle $\triangle ABC$