Assignment 3

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Download all python codes from

https://github.com/ooharapolu/ASSIGNMNT 3/Assignment3.py

and latex-tikz codes from

https://github.com/ooharapolu/ASSIGNMNT 3/main.tex

1 Question No.2.48

Draw a rectangle with adjacent sides 5 and 4

2 SOLUTION:

Let the vertices of Rectangle ABCD are

$$\mathbf{A} = \begin{pmatrix} 0 \\ 0 \end{pmatrix}, \mathbf{B} = \begin{pmatrix} a \\ 0 \end{pmatrix}, \mathbf{C} = \begin{pmatrix} 0 \\ c \end{pmatrix}, \mathbf{D} = \begin{pmatrix} a \\ c \end{pmatrix} \tag{2.0.1}$$

Here,a rectangle with adjacent sides $a = 5$ and $c = 4$
So, Coordinates of A,B,C and D are

$$\mathbf{A} = \begin{pmatrix} 0 \\ 0 \end{pmatrix}, \mathbf{B} = \begin{pmatrix} a \\ 0 \end{pmatrix} = \begin{pmatrix} 5 \\ 0 \end{pmatrix}, \mathbf{C} = \begin{pmatrix} 0 \\ c \end{pmatrix} = \begin{pmatrix} 0 \\ 4 \end{pmatrix}, \mathbf{D} = \begin{pmatrix} a \\ c \end{pmatrix} = \begin{pmatrix} 5 \\ 4 \end{pmatrix} \tag{2.0.2}$$

Now, $ABCD$ can be plotted using vertices AB,CA,CD and DB Plot the $ABCD$:

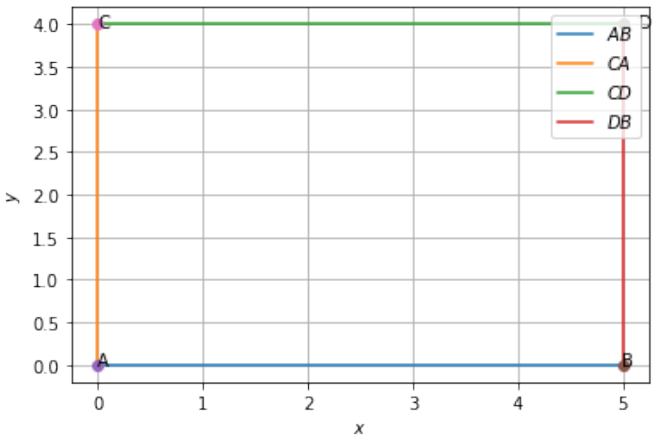

Fig. 2.1: $ABCD$