

Assignment 2

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Download all python codes from

<https://github.com/grajanarsavva/Matrix-theory/codes>

and latex-tikz codes from

<https://github.com/grajanarsavva/Matrix-theory>

1 QUESTION No. 2.45

Can you construct a Rhombus $ABCD$ with $AC=6$ and $BD=7$?

2 EXPLANATION

Let the vertices of the rhombus $ABCD$ be $\mathbf{A}, \mathbf{B}, \mathbf{C}$ and \mathbf{D} . We obtain the vertices of the rhombus as follows

$$\mathbf{A} = \begin{pmatrix} -3 \\ 0 \end{pmatrix}, \mathbf{B} = \begin{pmatrix} 0 \\ -3.5 \end{pmatrix}, \mathbf{C} = \begin{pmatrix} 3 \\ 0 \end{pmatrix}, \mathbf{D} = \begin{pmatrix} 0 \\ 3.5 \end{pmatrix} \quad (2.0.1)$$

Plot the Rhombus $ABCD$ is as follows:

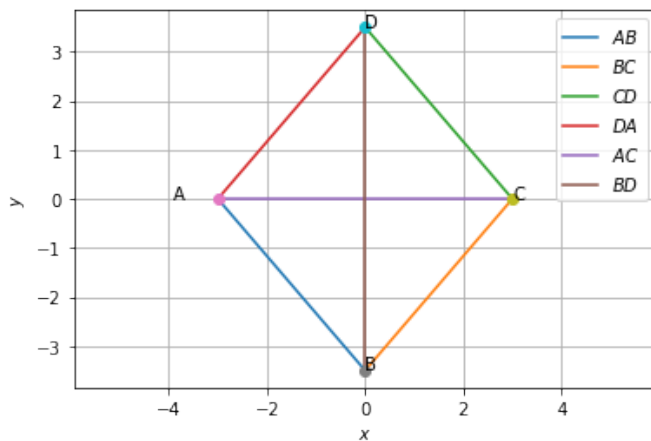


Fig. 2.1: Rhombus ABCD