

ASSIGNMENT 1

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Download all python codes from

https://github.com/AI20BTECH11014/EE3900-Linear-Systems-and-Signal-processing/blob/main/Assignment_1/Assignment_1.py

and latex-tikz codes from

https://github.com/AI20BTECH11014/EE3900-Linear-Systems-and-Signal-processing/blob/main/Assignment_1/Assignment_1.tex

1 RAMSEY/1.1 POINTS/Q.2(A)

Find the length of \mathbf{PQ} for

$$\mathbf{P} = \begin{pmatrix} -1 \\ 1 \end{pmatrix} \text{ and } \mathbf{Q} = \begin{pmatrix} 2 \\ -1 \end{pmatrix}$$

2 SOLUTION

The distance between \mathbf{P} and \mathbf{Q} is given by:

$$d = \|\mathbf{P} - \mathbf{Q}\| \quad (2.0.1)$$

So, the distance between \mathbf{P} and \mathbf{Q} is:

$$d = \sqrt{(-1 - 2)^2 + (1 + 1)^2} \quad (2.0.2)$$

$$d = \sqrt{9 + 4} \quad (2.0.3)$$

$$\therefore d = 3.6055 \quad (2.0.4)$$

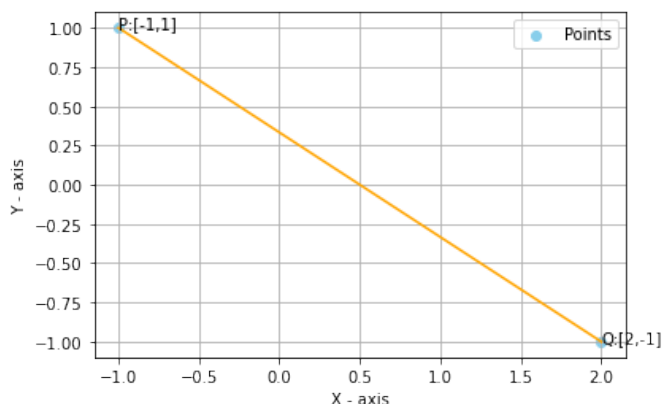


Fig. 0: Line between two points