Assignment No.4

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linear_form, exercises 2.3,i,j

1 QUESTION No 1

Draw the graphs of the following equations

$$A) \begin{pmatrix} 1 & 1 \end{pmatrix} \mathbf{x} = 0 \qquad (1.0.1)$$

$$B) \begin{pmatrix} 1 & -1 \end{pmatrix} \mathbf{x} = -2 \qquad (1.0.2)$$

2 SOLUTION

A) $\begin{pmatrix} 1 & 1 \end{pmatrix} \mathbf{x} = 0$

$$\mathbf{x} + \mathbf{x} = 0 \qquad (2.0.1)$$

$$\mathbf{x} = -\mathbf{x} \qquad (2.0.2)$$

B) $\begin{pmatrix} 1 & -1 \end{pmatrix} \mathbf{x} = -2$

$$\mathbf{x} - \mathbf{x} = -2 \qquad (2.0.3)$$

$$\mathbf{x} + 2 = \mathbf{x} \qquad (2.0.4)$$

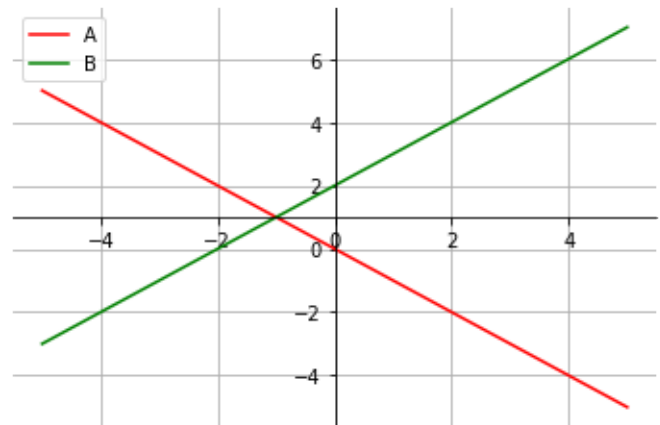Graphs of the equations (A) and (B) are constructed by using python as

Fig. 2.1: Graphs of Equations (a) and (b)