

ASSIGNMENT-3

Nagajyothi

1 QUESTION No-2.19 (LINEAR FORMS)

Find the equation of the parallel to the line $(3 \ -4)\mathbf{x} = 2$ and passing through the point $\begin{pmatrix} 2 \\ 3 \end{pmatrix}$

2 SOLUTION

Equation of the line in terms of the normal vector is obtained as

$$\mathbf{n}^T (\mathbf{x} - \mathbf{A}) = 0 \quad (2.0.1)$$

$$\Rightarrow \begin{pmatrix} -3 & 1 \end{pmatrix} \mathbf{x} = \frac{3}{2} \quad (2.0.2)$$

$$\Rightarrow (-3 \ 4)\mathbf{x} = 6 \quad (2.0.3)$$

Plot of the parallel

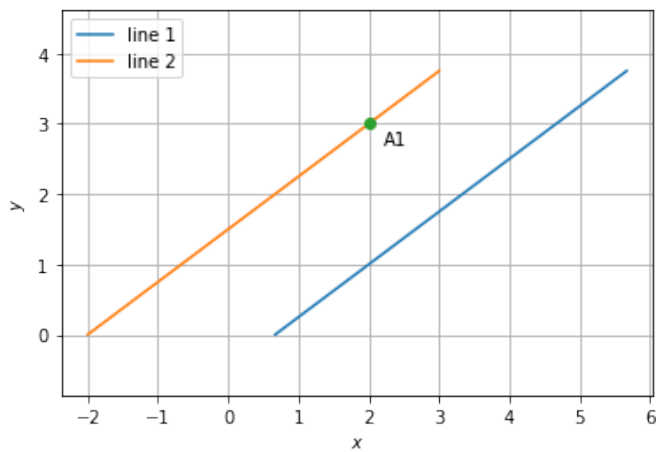


Fig. 2.1: download(3)(2).png