30 November 2018

1. 5 Find a solution to the initial value problem

$$
\mathbf{x}^{\prime}=\left[\begin{array}{ll}
1 & 2 \\
0 & 3
\end{array}\right] \mathbf{x}, \quad \mathbf{x}(0)=\left[\begin{array}{c}
1 \\
-1
\end{array}\right] .
$$

2. 5 Find a real valued general solution to

$$
\mathrm{x}^{\prime}=\left[\begin{array}{ll}
1 & -2 \\
4 & -3
\end{array}\right] \mathrm{x}
$$

