1) Verify through multiplication that the given pair of matrices are inverses of each other.

$$\mathbf{A} = \begin{bmatrix} 5 & 3 \\ 2 & 1 \end{bmatrix} \quad \mathbf{B} = \begin{bmatrix} -1 & 3 \\ 2 & -5 \end{bmatrix}$$