

1) Find the matrix product below.

$$\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & -3 \end{bmatrix} \begin{bmatrix} 0 & 2 & 3 \\ 0 & 1 & 4 \\ 2 & 0 & 3 \end{bmatrix}$$

2) Given the linear system below, find  $A$ ,  $\vec{x}$  and  $\vec{b}$  such that  $A\vec{x} = \vec{b}$  is the corresponding matrix equation.

$$\begin{aligned} 2x + 3y - 5z &= 2 \\ 4x + 7y &= 13 \end{aligned}$$

$$A =$$

$$\vec{x} =$$

$$\vec{b} =$$