1. We perform the following in Maple:
   s13n15extension:=Matrix([[1,-5,b1],[3,-8,b2],[-1,2,b3]]);
   ReducedRowEchelonForm(s13n15extension);
   Which of the following are true?

   a) $\begin{bmatrix} b_1 \\ b_2 \\ b_3 \end{bmatrix}$ is never in the span of $\begin{bmatrix} 1 \\ 3 \\ -1 \end{bmatrix}$ and $\begin{bmatrix} -5 \\ -8 \\ 2 \end{bmatrix}$

   b) $\begin{bmatrix} b_1 \\ b_2 \\ b_3 \end{bmatrix}$ is never a linear combination of $\begin{bmatrix} 1 \\ 3 \\ -1 \end{bmatrix}$ and $\begin{bmatrix} -5 \\ -8 \\ 2 \end{bmatrix}$

   c) $\begin{bmatrix} b_1 \\ b_2 \\ b_3 \end{bmatrix}$ is never in the plane formed by $\begin{bmatrix} 1 \\ 3 \\ -1 \end{bmatrix}$ and $\begin{bmatrix} -5 \\ -8 \\ 2 \end{bmatrix}$

   d) all of the above

   e) none of the above