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$$A = \begin{bmatrix} -3 & -2 & 4 \\ -9 & -6 & 12 \\ 0 & 0 & 0 \end{bmatrix}.$$

Find a basis for the kernel of A (or, equivalently, for the linear transformation $T(x) = Ax$).

A basis for the kernel of A is $\left\{ \begin{bmatrix} \boxed{} \\ \boxed{} \\ \boxed{} \end{bmatrix}, \begin{bmatrix} \boxed{} \\ \boxed{} \\ \boxed{} \end{bmatrix} \right\}.$

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