MA 262 - Quiz 7 (Lessons 16–18)

1. Find the dimension of the subspace of $\mathbb{R}^3$ spanned by the vectors

$$\begin{bmatrix} 1 \\ 2 \\ 4 \end{bmatrix}, \quad \begin{bmatrix} -1 \\ 3 \\ 6 \end{bmatrix}, \quad \begin{bmatrix} 3 \\ 1 \\ 2 \end{bmatrix}.$$

2. Find a basis of the space of all solutions of the equation

$$3x - 2y + 6z = 0 \,.$$