MATH 54 SUMMER 2017, QUIZ 3

Express $\mathbf{w}$ as a linear combination of $\mathbf{u}$ and $\mathbf{v}$ (i.e. find real numbers a and b such that $a\mathbf{u} + b\mathbf{v} = \mathbf{w}$.

$$\mathbf{u} = \begin{bmatrix} 1 \\ 2 \\ 3 \end{bmatrix} \quad \mathbf{v} = \begin{bmatrix} -1 \\ 0 \\ 2 \end{bmatrix} \quad \mathbf{w} = \begin{bmatrix} 7 \\ 10 \\ 11 \end{bmatrix}$$