Exercise **1** *Let* $\vec{u} = \langle 1, -2 \rangle$ *and* $\vec{v} = \langle 1, 1 \rangle$ *be two vectors. Find the vector* $\vec{x}$ *such that* $\vec{u} + \vec{x} = 2\vec{v} - \vec{x}$.

$$\vec{x} = \left\langle \boxed{1/2}, \boxed{2} \right\rangle$$