

$$\begin{array}{ccc}
 \mathrm{Hom}_L(V_L, W) & \xlongequal{\quad \sim \quad} & \mathrm{Hom}_k(V, W) \\
 \downarrow \text{restriction} & & \downarrow \text{restriction} \\
 \mathrm{Maps}(\{1 \otimes v_i\}_{i \in I}, W) & \xlongequal{\quad \sim \quad} & \mathrm{Maps}(\{v_i\}_{i \in I}, W)
 \end{array}$$