

1. True or False?

If $T \in \mathcal{L}(V, W)$ and v_1, \dots, v_n is a linearly independent list in V , then Tv_1, \dots, Tv_n is linearly independent in W .

2. True or False?

If $T \in \mathcal{L}(V, W)$ and v_1, \dots, v_n is a linearly dependent list in V , then Tv_1, \dots, Tv_n is linearly dependent in W .