Step-1

Given that 'If we know $T(v)$ for n different nonzero vectors in $\mathbf{R}^n$, then we know $T(v)$ for every vector in $\mathbf{R}^n$'.

We have to decide whether the given statement is true or false.

Step-2

False, if we know $T(v)$ for n different non zero vectors in $\mathbf{R}^n$. Then n nonzero vectors would have to be independent.

If false n vectors are dependent. Then $T(v)$ is not every vector in $\mathbf{R}^n$.

Hence the given statement is **false**.