

1 | $p(T)$

def

Suppose $T \in \mathcal{L}(V)$ and $p \in \mathcal{P}(\mathbb{F})$ is a polynomial given by

$$P(z) = a_0 + a_1z + a_2z^2 + \cdots + a_mz^m$$

for $z \in \mathbb{F}$. Then $p(T)$ is the operator defined by

$$p(T) = a_0I + a_1T + a_2T^2 + \cdots + a_mT^m$$

2 | using

deps

2.1 | Operator Exponents

3 | intuition

3.1 | Exactly how you would expect it to work

4 | results

4.1 | For some operator $T \in \mathcal{L}(V)$ the function from $\mathcal{P}(\mathbb{F})$ to $\mathcal{L}(V)$

$$p \mapsto p(T)$$

is linear