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0.1 Matrix powers

For a square matrix M we can calculate $MMMM\dots$, or M^n where $n \in \mathbb{N}$.

0.2 Powers of diagonal matrices

Generally, calculating a matrix to an integer power can be complicated. For diagonal matrices it is trivial.

For a diagonal matrix $M = D^n$, $m_{ij} = d_{ij}^n$.