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Shortest path problem
Lesson: we solved $k$-level problems by amalgamating solutions to several $(k-1)$-level problems.

In a general DP solution, "states" [vertices]

where to go next — decisions (edges)

$$\text{BIG \ Problem} = \min \left\{ \begin{array}{c}
\text{smaller one} \\
\text{smaller one} \\
\vdots \\
\text{smaller one}
\end{array} \right\} \quad \text{decide which smaller one is relevant}$$
\# \text{paths } S \rightarrow F = d^n

\# \text{steps in algorithm } \leq N \times d^2