Doomsday Fuel Analysis
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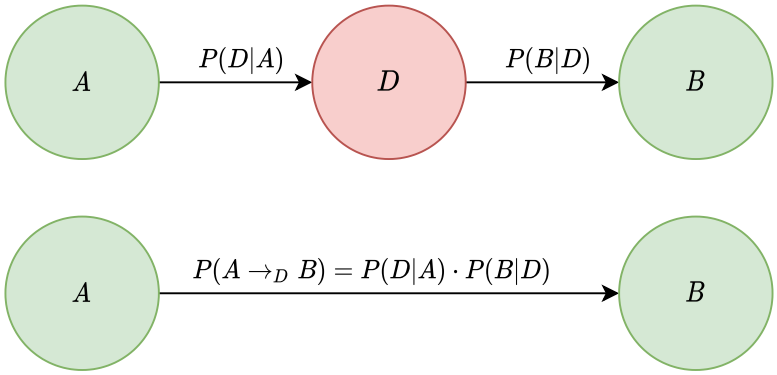

Let T_{AD} denote number of transitions from A to D and N_A denote total transitions from A.
Let $P(A \rightarrow_D B)$ denote the probability of transitioning from A to D, and then D to B.
Let $P(B|A)$ denote the probability of transitioning from A to B.

$$P(A \rightarrow_D B) = P(D|A) \cdot P(B|D)$$
$$= \frac{T_{AD}}{N_A} \cdot \frac{T_{DB}}{N_D}$$
$$= \frac{T_{AD} \cdot T_{DB} / N_D}{N_A}$$

This leads to the following algorithm:

- When non-terminal node D is deleted, for every state A that transitions into D:
  - Make a copy of transition counts of A
  - Multiply these counts by N_D
  - Iterate over every state B that D transitions to ($A \neq B$), and add $T_{AD} \cdot T_{DB}$ (original counts) to the transition count of A to B.
  - Divide all counts by their greatest common divisor to ensure integers remain small.