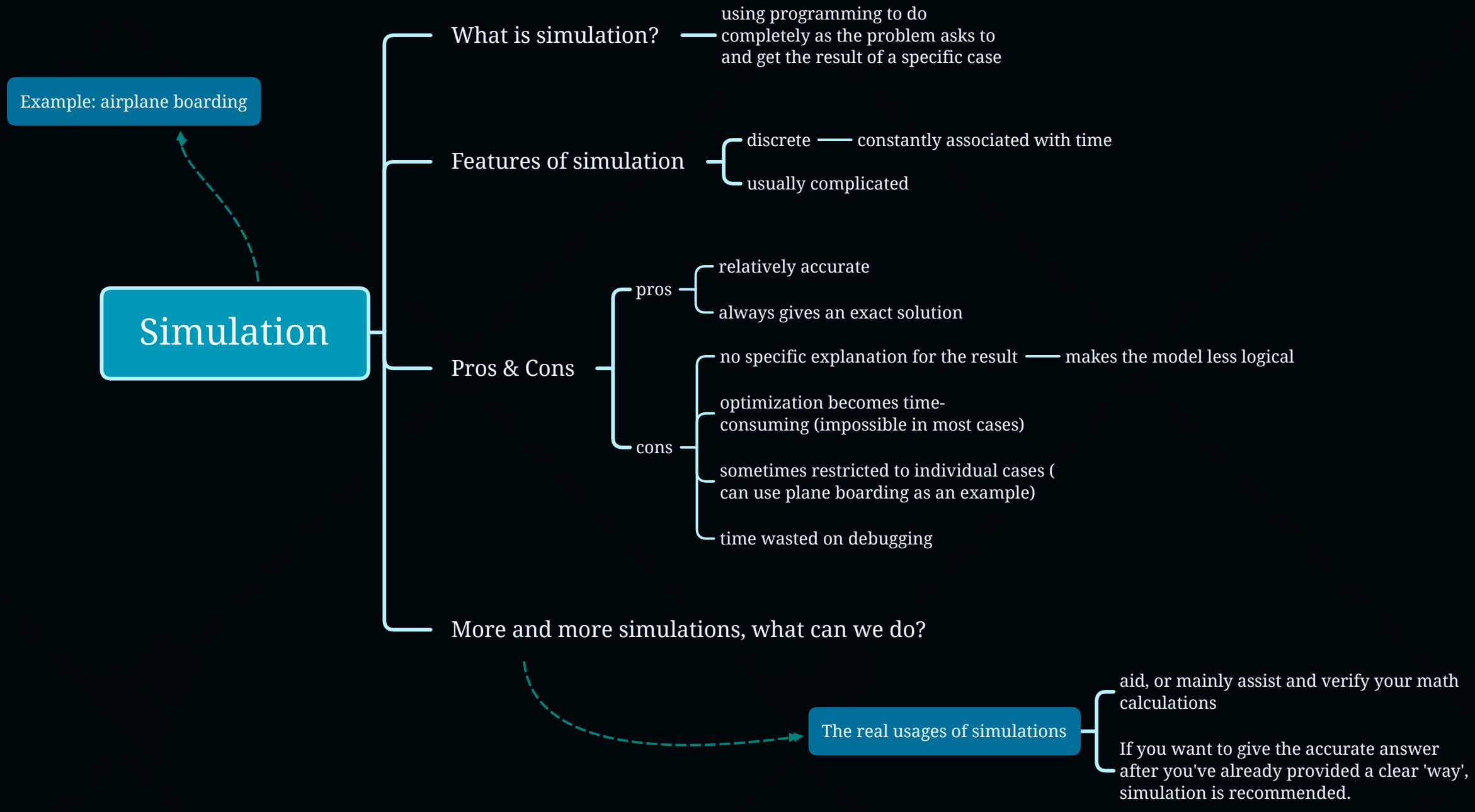
Example: airplane boarding
Simulation
What is simulation?
using programming to do completely as the problem asks to and get the result of a specific case
Features of simulation
discrete
constantly associated with time
usually complicated
Pros & Cons
pros
relatively accurate
always gives an exact solution
cons
no specific explanation for the result
makes the model less logical
optimization becomes time-consuming (impossible in most cases)
sometimes restricted to individual cases (can use plane boarding as an example)
time wasted on debugging
More and more simulations, what can we do?
The real usages of simulations
aid, or mainly assist and verify your math calculations
If you want to give the accurate answer after you've already provided a clear 'way', simulation is recommended.