

Simulation

Example: airplane boarding

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
optimization becomes time-
consuming (impossible in most cases)

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.