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**CS 440: Assignment 2 – Probabilistic Search (and Destroy)**

Questions:

1. Given observations up to time *t* (Observations*t*), and a failure searching Cell *j*, how can Bayes’ theorem be used to efficiently update the belief state, i.e., compute:

P(Target in Cell*i* | Observations*t*  ∧ Failure in Cell*j* )