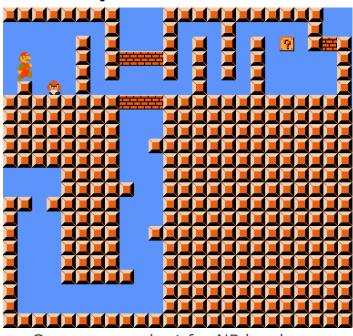
6.890 Fall 2014

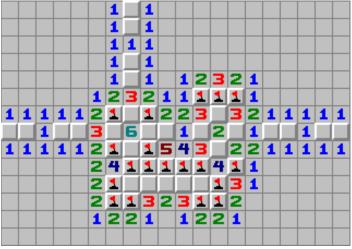
Algorithmic Lower Bounds: Fun With Hardness Proofs

Super Mario Bros



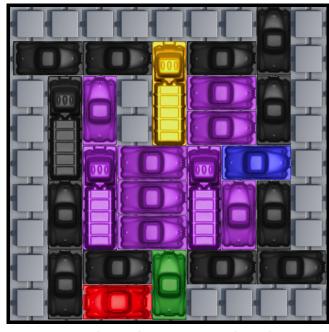
Crossover gadget for NP-hardness

Minesweeper



OR gadget for NP-hardness

Rush Hour



AND gadget for PSPACE-hardness

Hardness Made Easy*

NP-hardness,
APX-hardness,
PSPACE-hardness,
Nondeterministic
Constraint Logic,
#P-hardness,
3SUM-hardness,
and more!



Professor Erik Demaine Tuesdays and Thursdays 3:30-5:00 PM Room 2-105 http://courses.csail.mit.edu/6.890/

Grad H, AUS, and Theoretical CS Concentration

* Easiness not guaranteed. Side effects such as open problems and a heightened sense of complexity may occur. Ask your advisor if 6.890 is right for you!