Search problems
- methods for solving

Logic and probability
- logic can generalize, but not good for representing uncertainty

Learning
- how to build agents that learn from experience
  - methods for solving
  - logic and probability

What did we learn this semester?
Final Exam Format
- Approximately 10 questions (with subparts)
- Same format as midterm, but longer
- Allowed cheat sheets, 2 single-sided pages (8.5" x 11"")
- Bring a calculator

Two broad types:
- Apply algorithm A to problem P (denoted by A)
- Discuss tradeoffs / assumptions / relative merits of algorithms / problem formulations / models (short answer)

Exam is Sat. Dec. 6 12:00-15:00
- I will be away at a conference
- Prof. Richard Vaughan will proctor the exam

Intelligent Agents
- Definitions of AI
- Rationality
- Environment types
- Agent types

Search
- Understand different problem types and strategies for solving each of them
- Naive search algorithms, tradeoffs and advantages/disadvantages (A)
- Heuristic search algorithms, why and how they work, advantages/disadvantages of each (A)

Constraint Satisfaction Problems
- Relationship to search problems
- Heuristic for solving
- Apply heuristics to problems (A)
- Algorithm for arc consistency (A)

Game Playing
- Minimax search (A)
- α-β pruning (A)
- Apply these algorithms to game trees
- robust types
- Environment types
- Heuristics for solving
- Apply heuristics to problems (A)

Propositional Logic
- Models and entailment
- Inference algorithms
  - Enumeration
  - Forward/backward chaining (A)
  - Resolution proof
- Horn clauses

Smart Exam Format
- Complete all questions
- Answer complete questions
- Answer incomplete questions
- No page limits on answers
- No calculators allowed
- 1 hour, 30 minutes
- 12 questions
- 2 sides

CMPT 310