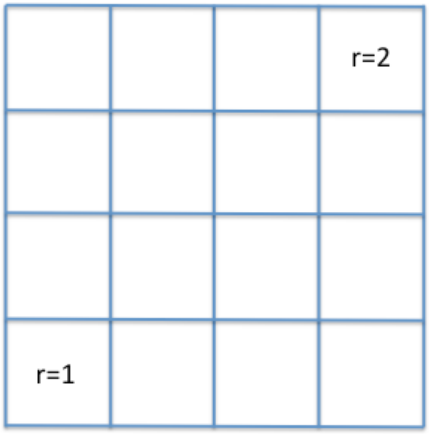
Assignment 7:

Due Nov 28, 2016, 4pm by email to dalhousieml2016@gmail.com with subject line A7.

1. Fill in the Q values for each state-action entry for the following grid problem:



2. Explain briefly **the difference** (don't just explain each algorithm) between the four basic value-based RL algorithms
   a. Policy Iteration
   b. Value (Q) Iteration
   c. SARSA
   d. Q-learning

3. What is the basic assumption of the Naïve Bayes algorithm?

4. Explain briefly the EM algorithm

5. Given three classes where each class has feature values that are Gaussian distributed around a different mean for each class, which method would you use to classify them? Argue for your choice.

6. Name and briefly explain 3 different unsupervised learning algorithms. (I recommend that you try to answer this before googeling it as Google can't help you in the final exam)

7. What is an autoencoder. Explain this methods and possible applications.