Homework Set 4b

The seismicity of a particular region is described by the Gutenberg-Richter recurrence law:



1. What is the probability that at least one earthquake of magnitude greater than 7.0 will occur in a
   1. 10 year period?
   2. In a 50-year period?
   3. In a 250-period?
2. What is the probability that exactly one earthquake of magnitude greater than 7.0 will occur in a
   1. 10 year period?
   2. In a 50-year period?
   3. In a 250-period?
3. Determine the earthquake magnitude that would have a 10% probability of being exceeded at least once in 50-year period.