Team Members: Weiran Guan(weirang2), Yunyi Zhang(yunyiz3)

As state on the piazza, we use 0 for lambda and to save computing resources we try difficulties with 2, 3, 4 leading zeros and we use both total amount of coins and time elapsed as the condition to stop. The miner will stop either we got 1000 coins or we mined for 10000 msec.

Table 1. The mining rates with different difficulties

2 leading zeros	3 leading zeros	4 leading zeros
147.1	8.1	1.0

The mining rate for 2 leading zeros difficulty is 18.2 times as the mining rate for 3 leading zeros difficulty and the mining rate for 3 leading zeros difficulty is 8.1 times as the mining rate for 4 leading zeros. Under the ideal circumstance, the times between them should be 16, it could be because the generation for new blocks causes more time. It could also be because the mining rate is not the same all the time.

The two of us write the code and debug and write the report together. We've done equal work.