Lab 1 Completed

With Bonus?

Q1 (with default assump)

CalcLike(HH)

ans =

-2.8451e+006

Q2 (all exactly correct assump)

```
key.assume.gNa = 120;
key.assume.gL = 0.3;
key.assume.stateV = 0;

CalcLike(HH)

ans =

2.6629e+004
```

Q3

key.assume.gNa = 0;
key.assume.gK = 0;

CalcLike(HH)

ans =

-2.5972e+008

Q4

key.gen.gNa = 0;
key.gen.gK = 0;
key.assume.gNa = 120;
key.assume.gK = 36

>> CalcLike(HH)

ans =

-4.2234e+010

Question 5

People had good answers to question 5 but no one had an answer like the one I had in mind. But I think it was a good exercise nonetheless.

We will revisit this question again in a future homework. I will provide a list of mechanisms (voltage gated sodium channels, leak channels, concentration gradient, etc) and ask you to describe in a few short sentences how each mechanism contributes to the action potential. Coming soon...

No one turned in bonus... :<(

Very few, if any, people, besides the 13 of us, have calculated likelihoods for the Hodgkin-Huxley model. Bonus work with my code will likely be original research.