

# Lam Comp Class Homework 1

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## 1 Problem 2

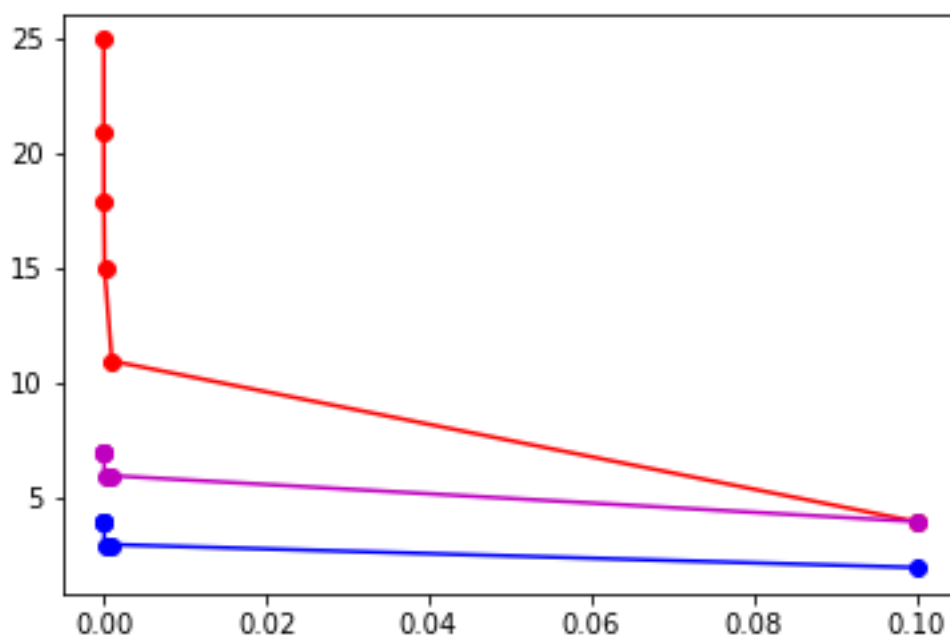


Figure 1: Here we have the three different methods. The red line is showing the bi-sectional method. As we can see the iteration of it coming to the threshold is pretty bad. The purple is the secant method. As we can see it is getting better but from the graph we can see a better method. The best method we see is the Newton method and that is in blue. It gets to out threshold with less iterations than the other two methods. By a lot.

## 2 Problem 3

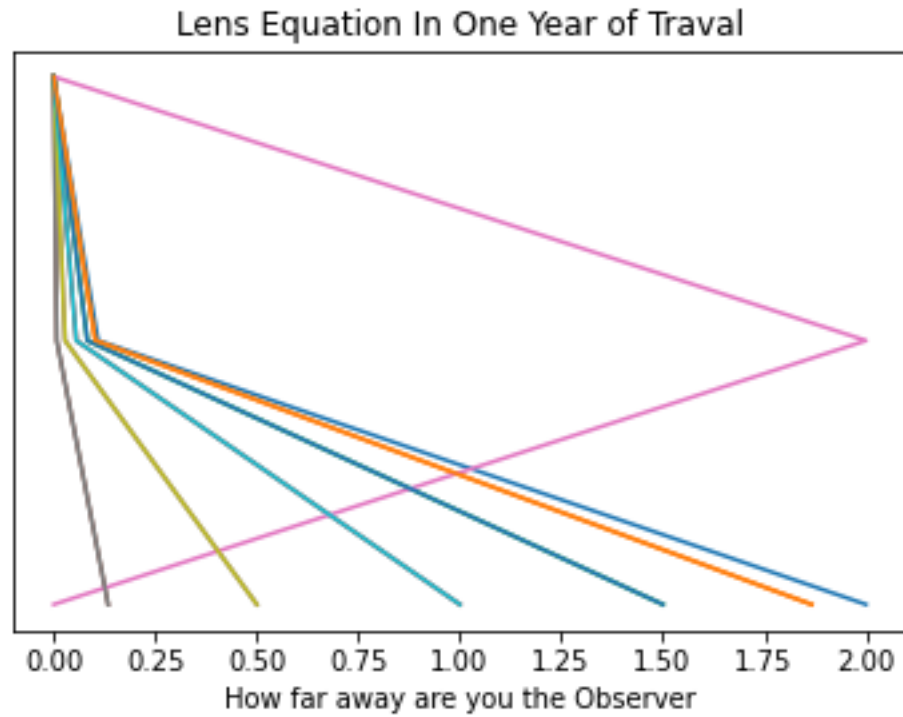


Figure 2: Here we see the lens effect of "breaking" the rays from a source. Although here we see the purple ray really off. This ray was supposed to have a value that would have let it but more or less vertical indicating a the straight ray we get during the "breaking" process from the lens. I could not fix that number for some reason but the other rays seems to be doing just fine.

### 3 Problem 6

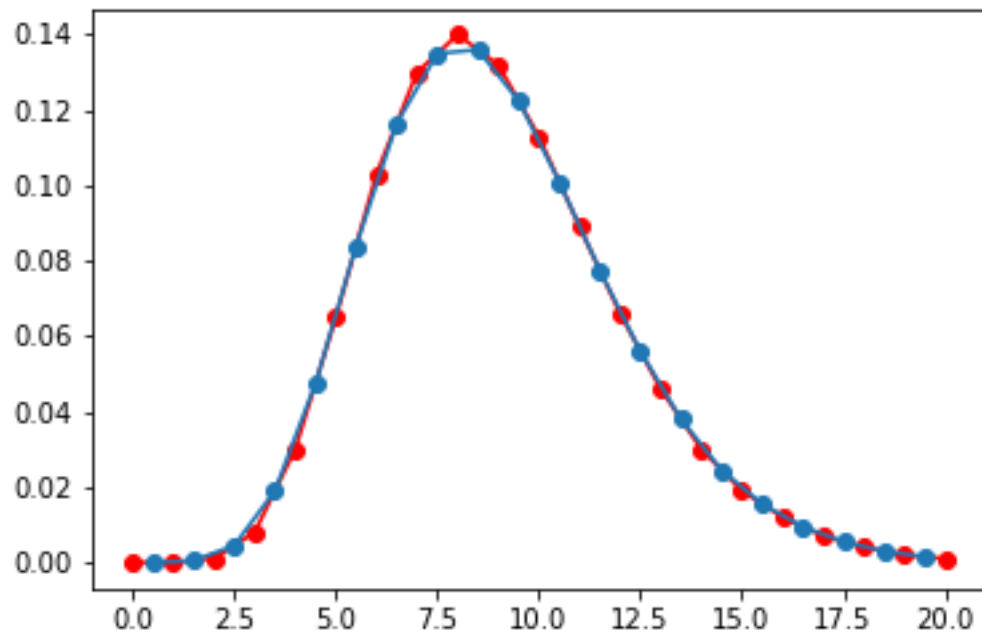


Figure 3: In this graph we have two lines. The red line although hard to see since they overlap a bit is the line that shows the data before interpolation. The peak at the max shows this. The blue line is the data after interpolation, we can see the peak now more flat and the curve "tighter" fit.