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THIS ASSIGNMENT IS DUE AT 9AM. LATE ASSIGNMENTS ARE NOT ACCEPTED.

1. Write a computer program to solve any optimization problem (that is related to economics) with one choice variable. The program should use one of the algorithms we discussed in class on September 16 (either the bisection algorithm or Newton's method). You also should check the solution using one or more algorithms from the Julia Optim package. The problem should not have an analytic solution, so that using a numerical method is necessary for solving the problem. The problem should not be identical to any problem discussed in class. The problem can be from another course at NIU, any economics textbook, or any published paper. You should reference the source of the problem. In addition to describing the solution, your answer should clearly describe the problem that is being solved.