Math 229, Spring 2024
Project: Peak oil

Do Lab 1.5 in the text.
In your writeup, please include the following:

1. The writeup as described in Lab 1.5.

2. The famous peak oil curve was derived by M. King Hubbard from this model. How is the peak oil curve related to the solutions you have obtained? Graph it for your solutions.

3. For each of the following situations, describe how the underlying logistic DE modeling oil production and the resulting solutions might be affected. Pay attention both to the current production levels and the long-term production behavior.

   (a) Technological innovation increases the total amount of recoverable oil. (This is precisely what has happened in recent years.)

   (b) Technological innovation increases the rate at which oil can be extracted, but not the total amount of recoverable oil.

   (c) Demand for oil gradually declines with time.

4. Based on these models, what policy recommendations about oil production would you make?