MTH 3311 – Test #2 - Part #3

Due - 11:59 pm; April 15, 2020

Pat Rossi   Name _____

The supply and demand of a commodity are given in thousands of units by $S = 48 - 24e^{-2t} + 16p(t) + 10p'(t)$ and $D = 240 - 8p(t) - 2p'(t)$, respectively. At $t = 0$, the price of the commodity is 12 units.

a) Find the price at any later time and obtain its graph.

b) Determine whether there is price stability and determine the equilibrium price (if it exists).

Remark: This is Exercise #1 of the B Exercises on p. 164. The answer to the exercise (in the back of the book) is probably incorrect, unless the answers have recently been updated.