MAE 281A
NONLINEAR SYSTEMS

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Homework 2

Due January 25, 2000

1. Khalil, Exercise 2.5.
   This is a special case of the mean value theorem. We will use it in several control designs.

2. Khalil, Exercise 2.7.
   This exercise shows how to apply the Gronwal lemma to the case $y(t) \leq \lambda(t) + \underbrace{\rho(t)} \int \mu(\tau) y(\tau) d\tau$.

3. Khalil, Exercise 2.27.

4. Khalil, Exercise 2.34.
   Hint: Apply Gronwall lemma.