## Math 135: Homework 8

DO NOT HAND IN. Do before the midterm on February 26

1. TP Exercise 28A and B: 18
2. TP Exercise 28D: 16
3. Let $a, b$, and $c$ be positive constants and let $g(t)$ be a continuous function. Show that if $y_{1}$ and $y_{2}$ are any solutions to the equation

$$
a y^{\prime \prime}+b^{\prime} y+c y=g(t)
$$

then

$$
\lim _{t \rightarrow \infty}\left(y_{1}(t)-y_{2}(t)\right)=0
$$

