Problem 20

For the initial value problem in Problem 18, plot $u'$ versus $u$ for $\omega = 0.7$, $\omega = 0.8$, and $\omega = 0.9$. Such a plot is called a phase plot. Use a $t$ interval that is long enough so that the phase plot appears as a closed curve. Mark your curve with arrows to show the direction in which it is traversed as $t$ increases.