**Introduction to HW 2 (in class)**

## In class introduction to HW 2

## Write a logistic growth function by renaming the old exponential function from week one and editing the function:

log.growth <- function(t, y, p) {

N <- y[1]

with(as.list(p), {

dN.dt <- r \* N \* (1-(N/K))

return(list(dN.dt))

})

}

## Make a vector of parameters called 'p', with the given variables:

p<- c('r'= 0.25, 'K'= 100)

## Set your initial conditions, called 'y0', using the function runif to assign randowm initial conditions:

y0<- c('N' = runif(1, min = 0.01, max = 0.1))

## Above, this just generated 1 random number, with a min value of 0.01 and a max of 0.1

## Establish t:

t<-1:100

sim<- ode(y=y0, times=t, func =log.growth, parms = p, method = 'lsoda')

sim<-as.data.frame(sim)

## Plot my simulation:

plot(N ~ time, data = sim, type = 'l', col ='green')