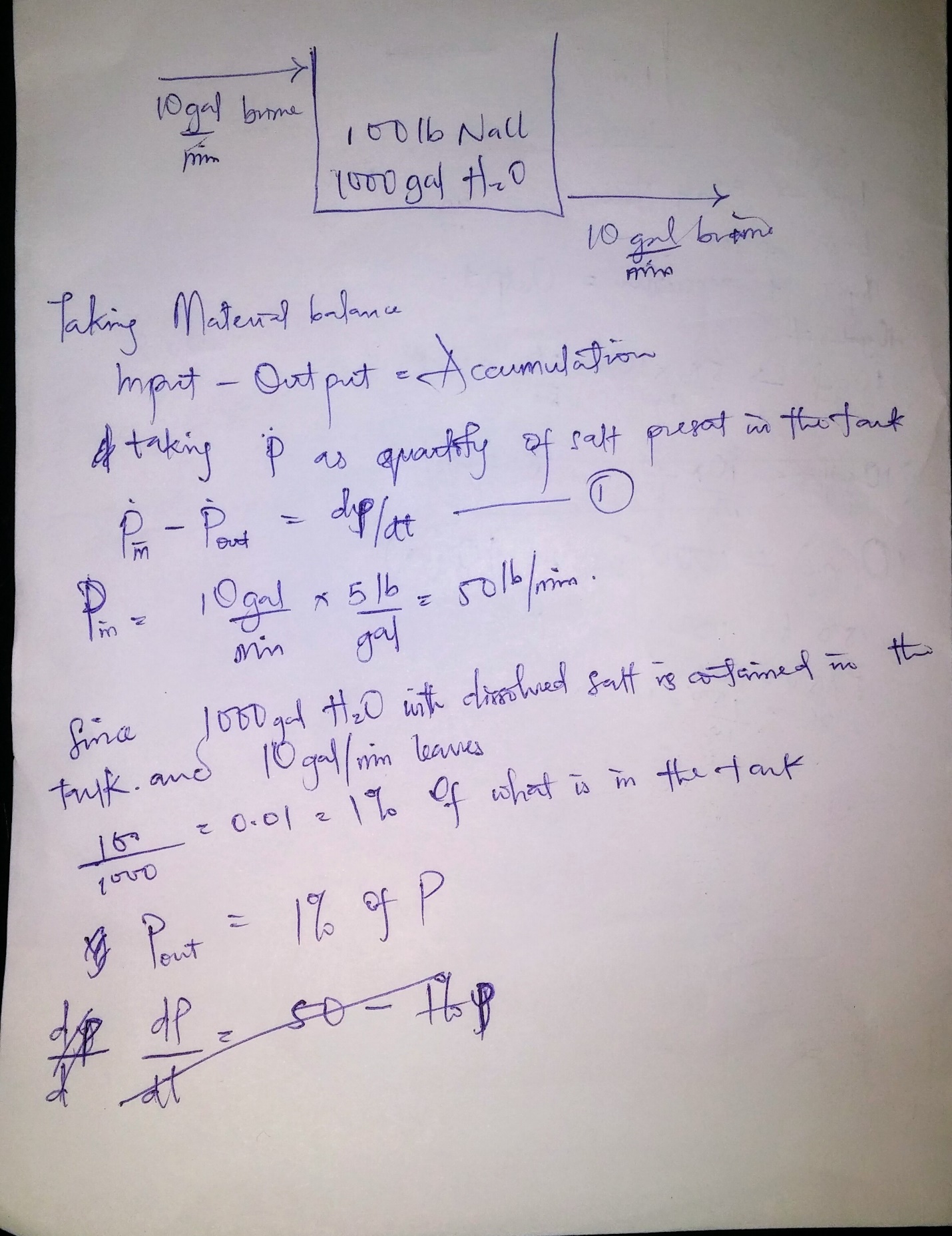
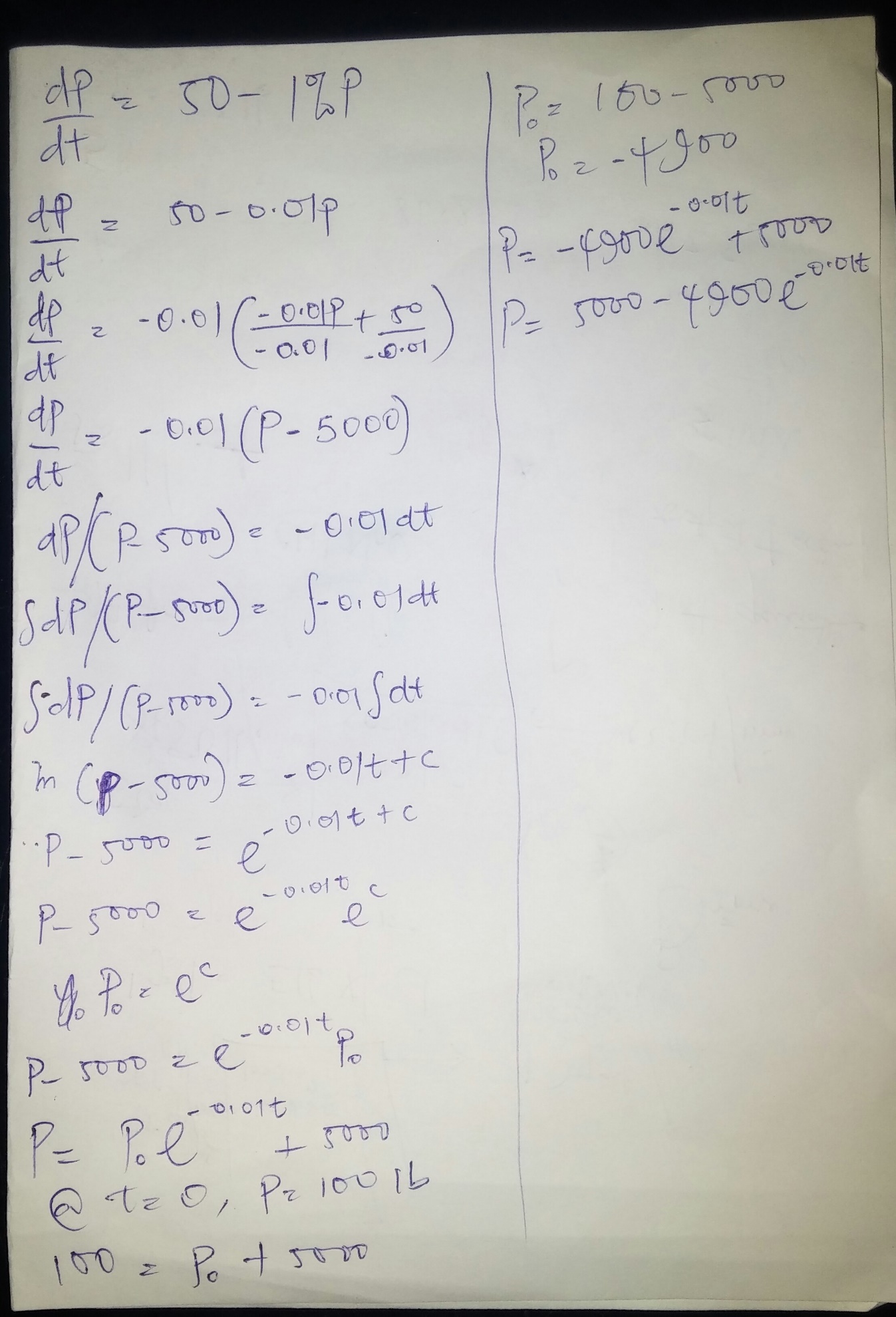
NAME: OGOMUEGBUNAM FAVOUR CHIDI

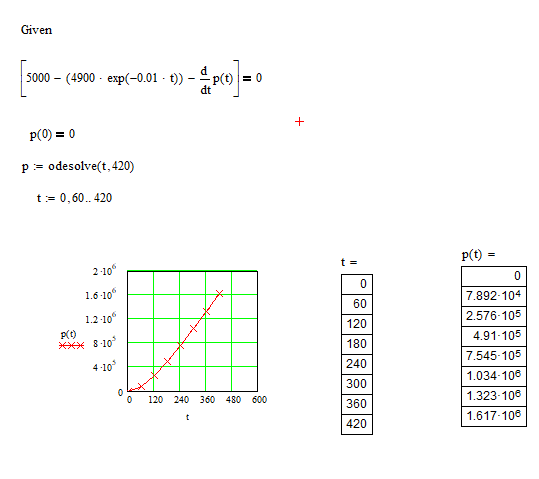
MATRIC NO: 17/ENG01/021

COURSE TITLE: CHE 362

ASSIGNMENT







Ode45 function

commandwindow

clear

clc

f =@ (t, p)[5000+(-4900\*exp(-0.01\*t))-p]

tstep=[0:60:420]

p=0

[t,p] = ode45(f,tstep,p)

figure(1)

plot(t,p)

tablo=[t p]

title('Graph of p against t')

xlabel('t')

ylabel('p')

tablo =

1.0e+03 \*

0 0

0.0600 2.2839

0.1200 3.5079

0.1800 4.1828

0.2400 4.5521

0.3000 4.7529

0.3600 4.8629

0.4200 4.9246

Euler method

commandwindow

clear

clc

t0=0

tn=420

h=60

t = t0:h:tn

n=length(t)

p(1)=0

for i=1:n-1

pprime(i+1) = (5000+(-4900\*exp(-0.01\*t(i))))

p(i+1)=p(i)+h

end

tablo=[p' pprime']

figure(2)

plot(t,p)

grid minor

