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% Name: Terry-Ann Sneed
% Lab #1 - Fall 2018

clc close all
clear all %
Exercise 1:

% A and B array population
A = [1 1; 1 0];
B = [1 0; 0 1];

% X and Y calculation definition
X=A*B;
Y=A.*B;

% Print to console of X AND Y
fprintf('X = A*B:\n\n')
disp(X)

fprintf('Y = A.*B:\n\n')
disp(Y)

% Here X and Y are not the same because % Y multiplies arrays A
and B element by element whereas X simply  performs % matrix
multiplication % Exercise 2:

clc clear
all close
all

% Sequence creation
t=0:100;
y=t.*exp(t);

% Plot creation
plot(t,y),xlabel('y'),ylabel('t'),title('y vs. t')
% Exercise 3:

% a), b) & c)

% I have not figured out to implement this in a loop, however here is
the % idea:

% this is the decimal number to be converted to binary

% x=25;

% b is what we will divide the decimal numbers by
% b=2;

% here we want to divide the decimal number by b
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% y=x/b;

% then we get the remainder
% remainder=rem(25,2);

% continue dividing the interger part of the output
%y=floor(y/b);

% etc until y = 0
%remainder=rem(y,2);

% then store remainder values into an array which will display the
binary % value


x=255;
b=2;
binary=[];


y=x/b;
binary(1)=rem(x,2);

while(y>0)      for p=2:10
y=floor(y/b);
binary(p)=rem(y,2);
disp(binary(p))     end end

for p=1:10
fprintf('binary # is: ')
disp(binary(p)) end X = A*B:

     1     1
     1     0

Y = A.*B:

     1     0
     0     0

     1

     1

     1

     1

     1

     1

     0
```

```
     0

0

binary # is:      1

binary # is:      1

binary # is:      1

binary # is:      1

binary # is:      1

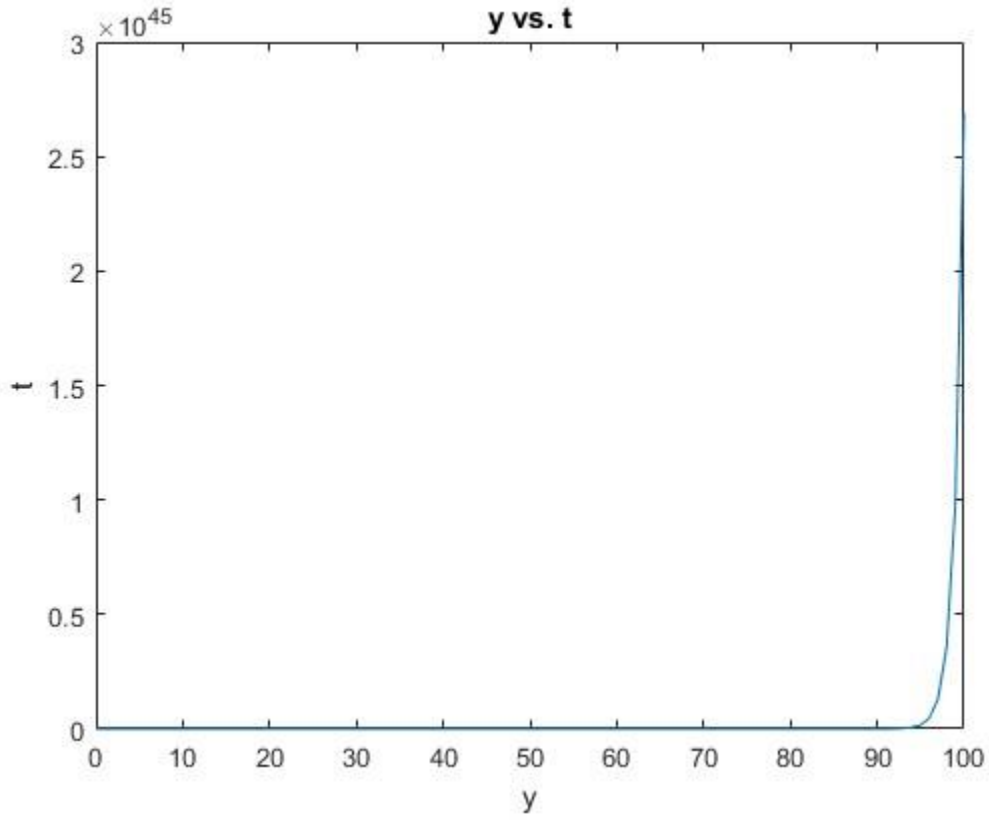
binary # is:      1

binary # is:      1

binary # is:      0

binary # is:      0

binary # is:      0
```



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