Controls System Lab 1 Colin Roskos

An introduction to matlab through simple equations.

Code:

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

% Controls Systems Lab

% Lab 1 : Getting familiar with Matlab

% Colin Roskos

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%% Part 1

%%%%%%%%%%%%%

a = 5;

b = 10;

x = 0:.2:5;

y = exp(-a)\*sin(x)+b\*sqrt(x);

plot(y, x, "b.-")

%%%%%%%%%%%%%

%% Part 2

%%%%%%%%%%%%%

A = [1 2 3 ; 4 5 6 ; 7 8 9];

At = inv(A)

%%%%%%%%%%%%%

%% Part 3

%%%%%%%%%%%%%

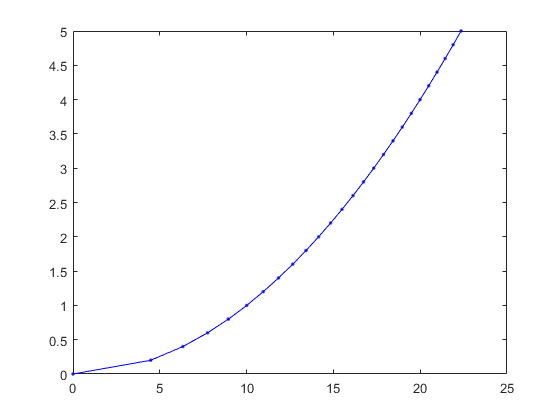
o = fun(10)

r = roots([1, 30, 200])

function f = fun(s)

f = s^2 + 30\*s + 200;

end



Output:

At =

1.0e+16 \*

0.3153 -0.6305 0.3153

-0.6305 1.2610 -0.6305

0.3153 -0.6305 0.3153

o =

600

r =

-20

-10