EGN3204 — Engineering Software Tools
Pensacola (82151) Section, Fall 2014
Problem Set #10 (November 13, 2014 Lecture)
(Word, Matlab R2013a)

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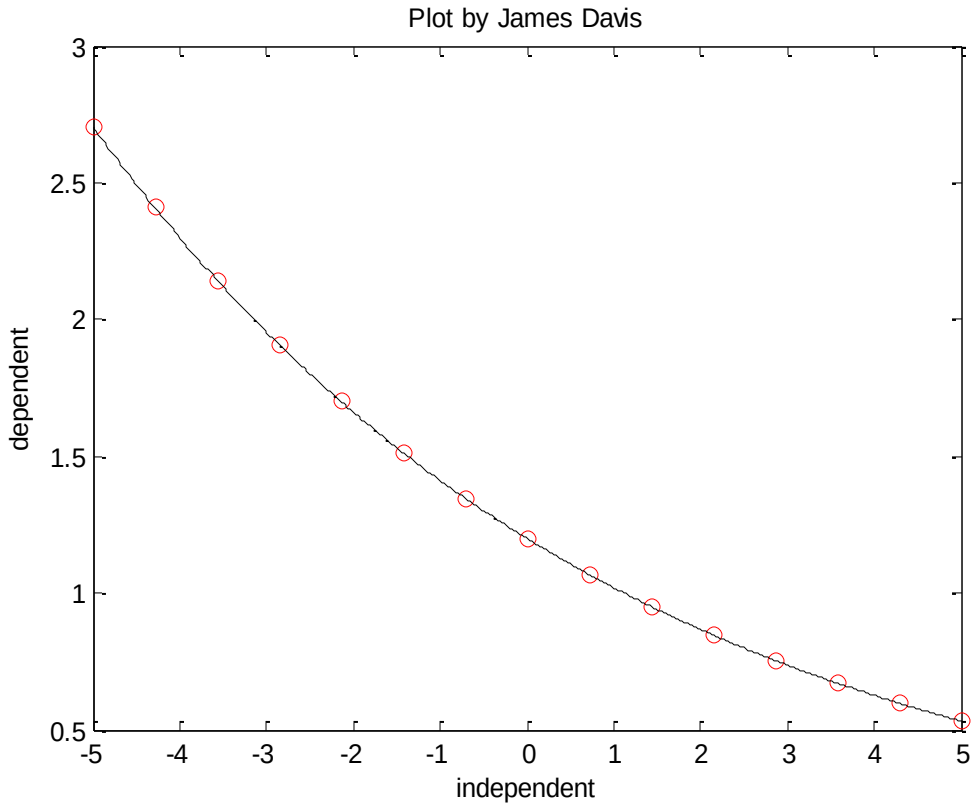
1. The matlab code for problems 1 is given in Figure 1 and the output for problems 1 is given in Figure 2.

```
%James Davis, EGN3204, Fall 2014
% MATLAB m file for problem 1, Project 12

clear all

clear console
load('davis_exponential.mat');

[p] = polyfit(x,log(y),1);
r = exp(p(2));
s = exp(p(1));
xplot = linspace(x(1),x(end),500);
yplot = r*(s.^xplot);

figure(1)
plot(x,y,'or',xplot,yplot,'-k')

xlabel('independent')
ylabel('dependent')
title('Plot by James Davis')
fprintf('The value of r is %f and the value of s is %f',r,s);
```

Figure 1. The matlab m file for problem 1.



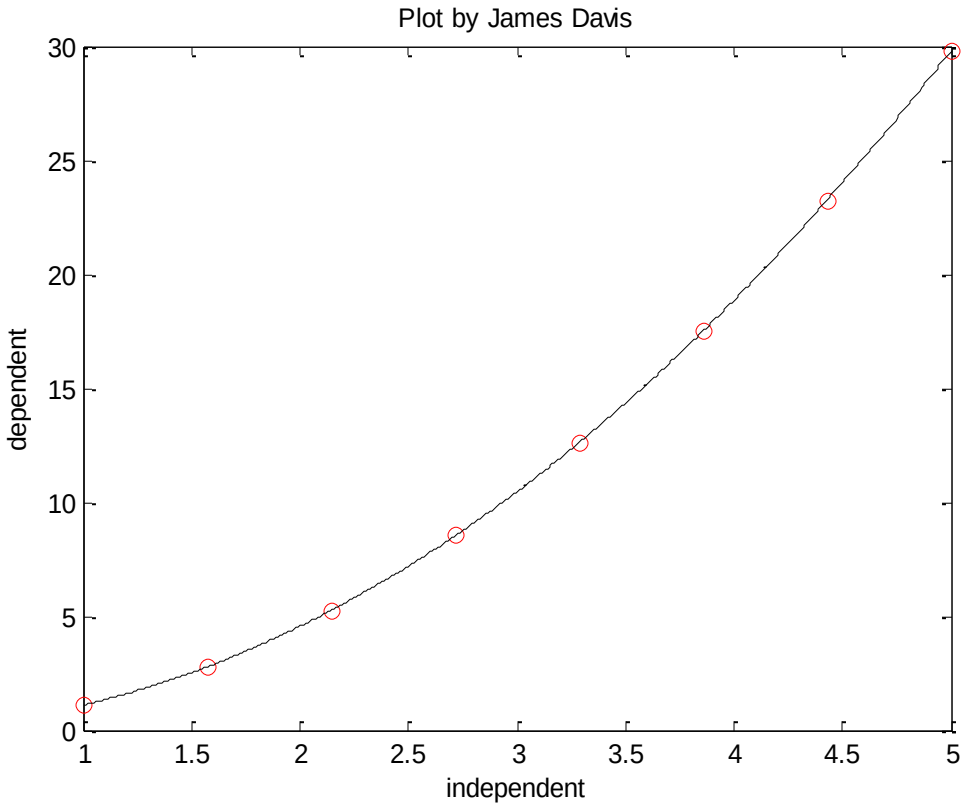

```
The value of r is 1.2000 and the value of s is 0.850000
```

Figure 2. The selected outputs for problem

2. The matlab code for problem 2 is given in Figure 3. The selected outputs for the problem are given in Figure 4.

```
%James Davis, EGN3204, Fall 2014
% MATLAB m file for problem 2, Project 12

clear all
clear console

load('davis_power.mat');

r = polyfit(log(x),log(y),1);

p = exp(r(2));
q = r(1);

xplot = linspace(x(1),x(end),500);
yplot = p*(xplot.^q);

figure(1)
plot(x,y,'or',xplot,yplot,'-k')
xlabel('independent')
ylabel('dependent')
title('Plot by James Davis')
fprintf('The value of p is %f and the value of q is %f',p,q);
```

Figure 3. the matlab m file for problem 2.




```
The value of p is 1.100000 and the value of q is 2.050000
```

Figure 4. The function called in Figure 3.