

EGME 2050 Computational Methods
Spring 2022

Lab Week 13
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Submitted
04/07/2022

Problem 1: Section 32.7

%Assign values for f and x

f=[6,7,8,9];

x=[15,12,9,6];

%Linearize the values

X=log(x);

F=log(f);

N=length(X);

%Solve the linear equation

$$B = (N \cdot \sum(X \cdot F) - \sum(X) \cdot \sum(F)) / (N \cdot \sum(X.^2) - (\sum(X))^2);$$

$$A = (\sum(F) - B \cdot \sum(X)) / N;$$

%Resets the function

beta=B

alpha=exp(A)

Problem 2: Section 32.8

```
function result = mypolyval(c,x)
%Flips c
c=fliplr(c);
result=[];
P=0;
%Finds the y values for each x, with any size x or c
for i=1:length(x)
    for j=1:n=length(c)
        d=c(j)*x(i)^(j-1);
        P=P+d;
    end
    %Stores each vlaue of y for each value of x
    result=[result P];
    P=0;
end
end
```