

Econ 512 HW 5

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The codes and comments have been specified in the MATLAB file hw5.m & ind'll.m. Please note that I took help from Ece Teoman for this question.

1 Question 1: Function & Code

```
function [ind'll] = ind'll(X,Y,beta'grid);  
F = @(e) (1 + exp(-e)) ^ (-1);  
beta = repmat(beta'grid,20,1);  
k = ones(20,100);  
ind'll = prod(F(beta.*X).^(Y)).*((1 - F(beta.*X)).^(k - Y));  
end
```

Main Code:

```
load('hw5.mat');  
X = data.X;  
Y = data.Y;  
Z = data.Z;  
[nodes, prob] = qnwnorm(20, 0.1, 1);  
beta = repmat(nodes,1,100);  
f=ones(20, 100);  
value=ones(20, 100);  
  
for i=1:20  
f(i, :)=ind'll(X,Y,beta(i,:));  
value(i, :)=f(i, :).*prob(i, :);  
end  
  
expec=sum(value);
```