

Econ 512 HW 5

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October 2018

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, 1);
end

expec=sum(value);
```