function myReg = myLinReg(x,y)

% Calculates the slope and intercept of the linear regression line using

% the least squares method outlined in ME 236 Course Pack

% Determining number of data points

n = length(x);

% Initializing variables

xy = 0;

xSq = 0;

% Determines sum of x\*y and x^2 values

for i = 1:n

xy = xy + x(i)\*y(i);

xSq = xSq + (x(i)^2);

end

% Calculates slope and intercept of linear regression

intercept = (sum(x)\*xy - xSq\*sum(y))/((sum(x))^2 - n\*xSq);

slope = (sum(x)\*sum(y) - n\*xy)/((sum(x))^2 - n\*xSq);

% Output calculated slope and intercept

myReg = [slope,intercept];

end