Help for Problem Set 3 Question 2:

- To see the relationship between Slutsky and Marshall's—try to derive each from the following expression (Chapter 14 of the textbook--page 147):

$$\frac{d}{dw_j}X_i(Y,\boldsymbol{w}) = \frac{d}{dw_j}\frac{\partial c(Y,\boldsymbol{w})}{\partial w_i} = \frac{\partial^2 c(Y,\boldsymbol{w})}{\partial Y \partial w_i}\frac{dY}{dw_j} + \frac{\partial^2 c(Y,\boldsymbol{w})}{\partial w_j \partial w_i}$$

- Part E is difficult and won't count too much against your grade for that reason. Focus on deriving the ML equation without CRS. Get intuition from supply and demand diagram and think about all the info necessary to know the precise magnitude of how much MC changes when an input price changes. How does that necessary info compare with the CRS case?