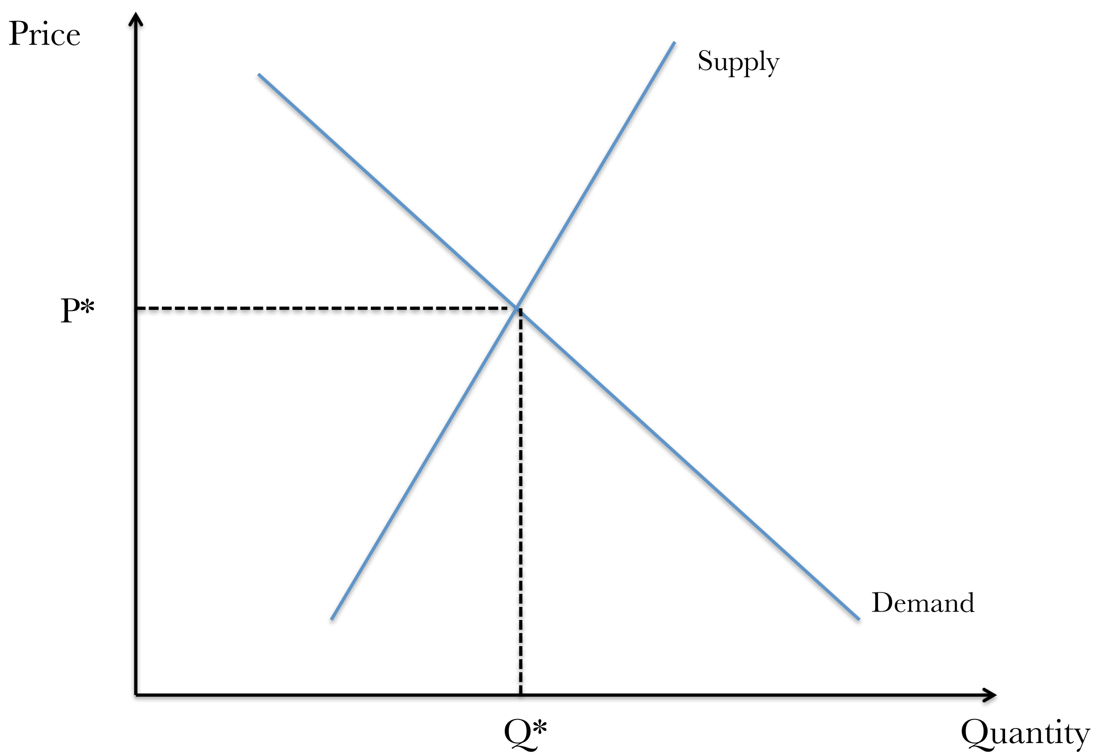
Homework: Using Supply and Demand **Economics 304**

1). Explain the relationship between elasticity and slope of a linear demand curve. Be specific, use equations and graphs if possible.

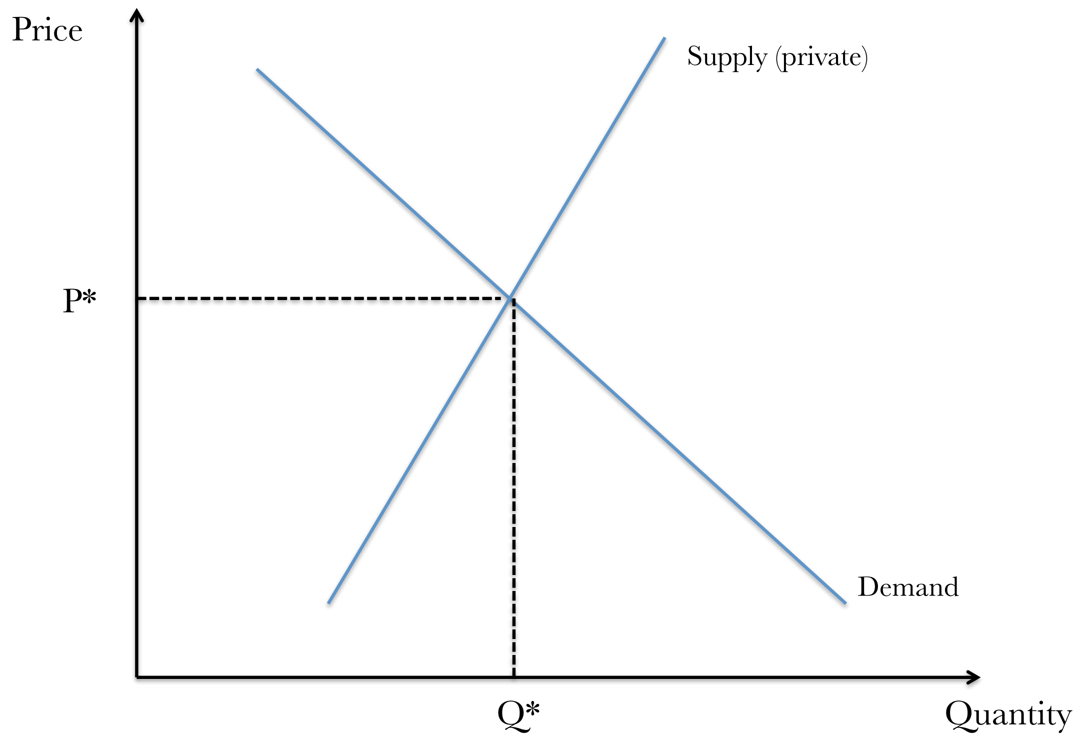
2) Explain the notion of tax incidence in the supply and demand model and how it relates to the concept of elasticity.

3. Public policy in the United States has often tried to encourage the production and use of certain products, e.g. solar panels, which produce electricity from the sun.

A) A popular policy is to provide a subsidy for solar panels. On the graph below show a subsidy wedge, the quantity and the price consumers pay and producers receive. On the same graph show the welfare implications compared to the competitive equilibrium. Be clear in how you are labeling things.



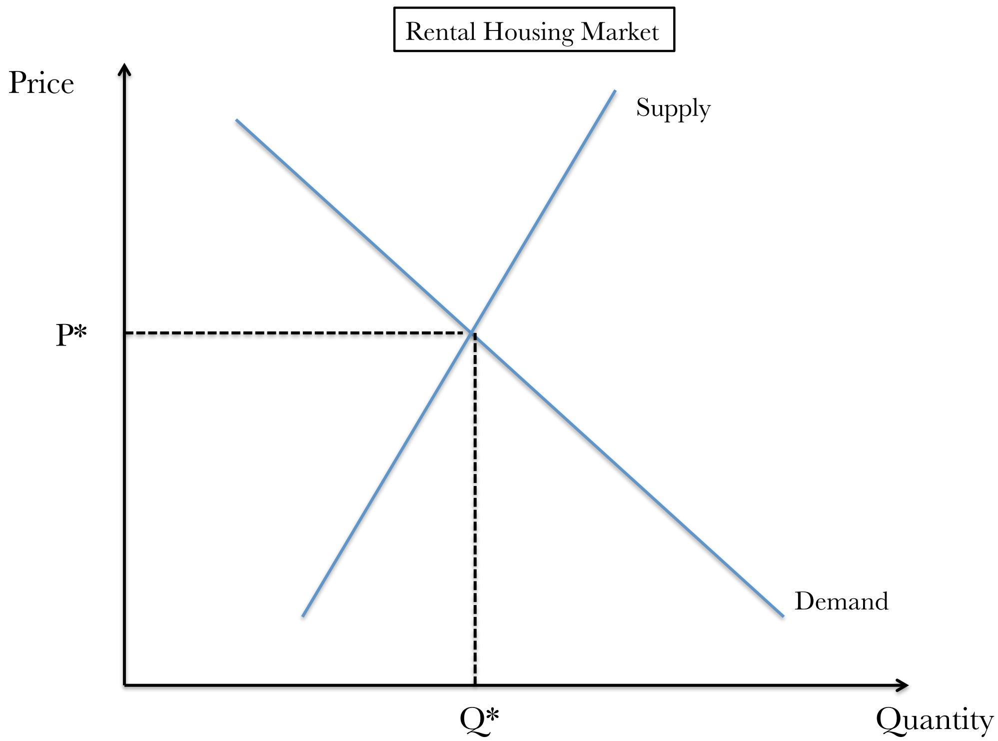
B) Another policy is the government provision of a good. Show on the graph provided how government provision of solar panels will effect the price, quantity and private producers. Be specific.



C) Describe the economic concept of crowding out and where it shows up in this model / graph.

4. This question examines the market for housing in the United States.

Rent control in the form of a price ceiling is a popular affordable housing policy in the U.S. On the graph below depict a binding price ceiling and the welfare <u>changes</u> compared to the competitive equilibrium. Be clear in how you are labeling things.



C) Describe the concept of deadweight loss <u>and</u> where it comes from in this scenario.

5. The City of Norfolk is looking for new revenue sources. It is considering imposing a tax on two goods: movie tickets and wine. The price elasticity of demand for the goods are -0.47 for movie tickets and -1.89 for wine.

A) (15 pts) Which good should it tax if the goal is to raise revenue? If the government wants to tax only one good, which good should it tax if the goal is to discourage consumption? Explain your answer. It would be helpful to use graphs in your explanation.

B) (15 pts) Describe the idea of the incidence of a tax. For each good (movie tickets and wine) who faces the higher tax incidence, consumers or producers? Why?