

# IVC

## Irvine Valley College

### Homework – S & D, Elasticity & Cost Economics 1 Honors Mark McNeil

The following supply and demand exercises are intended to help you understand how prices are determined in markets. In each case there is a specified market that is assumed to be in equilibrium. An event occurs that will probably have some effect on this market either by affecting the supply or the demand for this product, or perhaps both.

You are to first determine if the given event(s) affect the supply (S) or the demand (D) for this product and whether the event will produce an increase (->) or decrease (<-) in supply or demand. Always analyze only the immediate, short term effects of the event. You must then determine what effects the event has produced on equilibrium price and equilibrium quantity in this market. Increases or decreases in equilibrium price or quantity should be indicated by arrows up or down. If there is no change, the symbol to show this is (0), and if the outcome is indeterminate, the symbol is (?).

If a change in supply or demand (a shift) has occurred, you must explain the reason for this shift. The basis of the explanation should be one of the non-price determinants of supply or demand. These are:

#### Demand   Supply

1. Income
2. Tastes and Preferences
3. Related Goods
4. The Number of Buyers
5. Consumer Expectations

1. Resource Prices
2. Technology
3. ?
4. The Number of Sellers
5. Producer Expectations
6. Per Unit Taxes and Subsidies

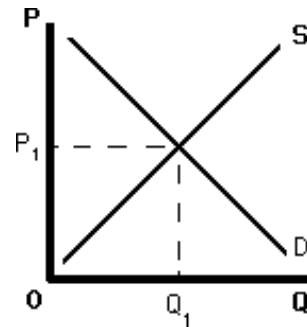
For example, a change in demand might be caused by a change in consumer incomes or a change in the price of a related good - complement.

Finally, please be careful to distinguish between a change in demand or supply (**a shift** caused by one of the non-price determinants of demand or supply) and a change in quantity demanded (**a movement** along an existing curve) which is caused by a change in the price of the good itself.

#### 1a. The Market: Chicken

**The Event:** New hormones are developed that make the chickens grow faster with less food. (Chickenfeed isn't chickenfeed these days.) The anti hormone movement gets stronger – no hormones in meat or milk.

S   D   Eq.P   Eq. Q



The change in supply (if any) is caused by: \_\_\_\_\_

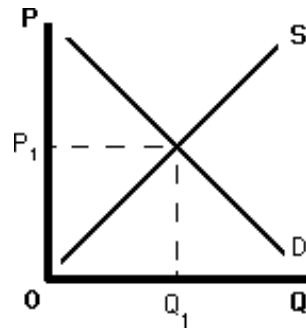
The change in demand (if any) is caused by: \_\_\_\_\_

Show these changes on the graph.

**1b. The Market:** Hybrid Cars

**The Event:** The government establishes a \$2000 per car subsidy on hybrid cars. New diesel technology permits diesel cars to get incredible mileage with no loss of performance.

S     D     Eq.P     Eq. Q



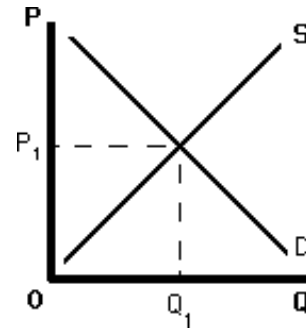
The change in supply (if any) is caused by: \_\_\_\_\_

The change in demand (if any) is caused by: \_\_\_\_\_  
Show these changes on the graph.

**1c. The Market:** Plain Wrap Canned Corn

**The Event:** McNeil's economic recovery plan is enacted. It is a great success!. Incomes rise as unemployment falls greatly. Cannery workers strike and get substantially higher wages.

S     D     Eq.P     Eq. Q



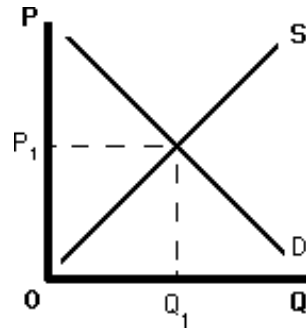
The change in supply (if any) is caused by: \_\_\_\_\_

The change in demand (if any) is caused by: \_\_\_\_\_  
Show these changes on the graph.

**1d. The Market:** Retirement Homes

**The Event:** The baby-boomers are getting very old – collecting Social Security and moving to places like Leisure World. Entire new retirement communities are springing up all over the country.

S     D     Eq.P     Eq. Q



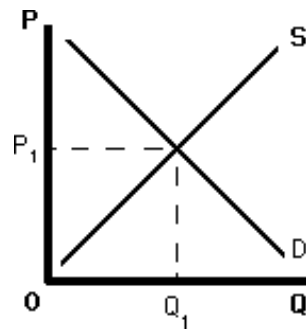
The change in supply (if any) is caused by: \_\_\_\_\_

The change in demand (if any) is caused by: \_\_\_\_\_  
Show these changes on the graph.

**1e. The Market:** Apple iPods

**The Event:** In order to help lower income types enjoy stolen music like everyone else, the government imposes a maximum price of \$39.99 for an Apple iPod. Even econ instructors can now afford them!!!!

S     D     Eq.P     Eq. Q



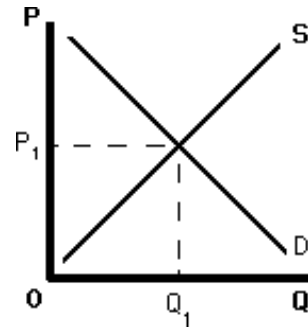
The change in supply (if any) is caused by: \_\_\_\_\_

The change in demand (if any) is caused by: \_\_\_\_\_  
Show these changes on the graph.

Create and answer two of these questions, at least one with two shifts.

2a. The Market:

The Event:



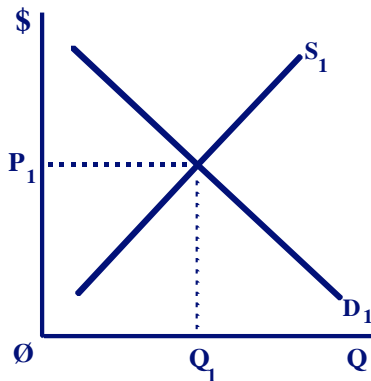
S      D      Eq.P      Eq. Q

The change in supply (if any) is caused by: \_\_\_\_\_

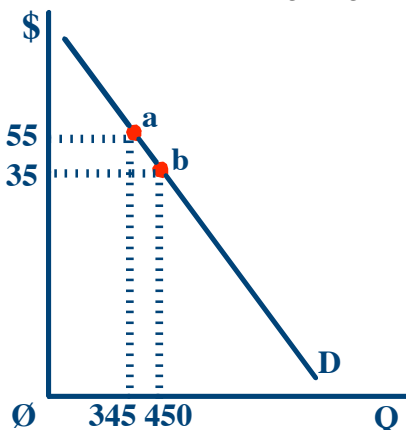
The change in demand (if any) is caused by: \_\_\_\_\_

Show these changes on the graph.

- It is very clear that a price of \$4.00 per gallon of gasoline is outrageous and intolerable. I think, therefore, that to make gasoline more affordable and available to low income types, we should restrict the price to \$2.00 per gallon maximum. Explain whether you agree or disagree. What will be the consequences of this proposal? Will gasoline be more affordable and available under this plan? The diagram may be of some use in your explanation.



- Given the following diagram:



Calculate the coefficient of elasticity of demand. Explain whether the demand is elastic or inelastic as the price changes from \$55 to \$35. Show your work.



9. The Department of Defense awards you a cost-plus-10-percent contract to build missiles in your garage. Which of the following are marginal costs and may be legitimately included in your calculation of costs?
- The original cost of constructing the garage, adjusted for inflation and depreciation
  - Weather damage to your car from parking it outside because your garage is full of missile-making machinery
  - The cost of lengthening the garage by four feet so the missiles don't extend into your driveway where neighborhood children might accidentally set one off
  - The cost of the math courses you took years ago that turned out to be prerequisites for the course on missile making
  - The cost of psychological counseling whereby you seek to overcome depression when your children scorn you and call you an uncaring warmonger.