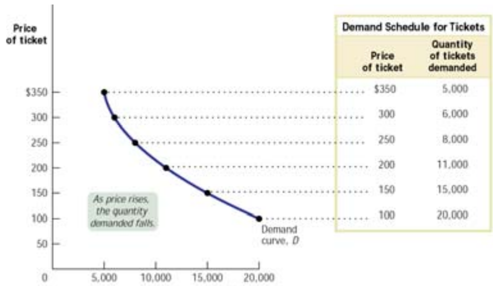
Supply and Demand

- Lecture 3 outline (note, this is Chapter 4 in the text).
  - The demand curve
  - The supply curve
  - Factors causing *shifts* of the demand curve and *shifts* of the supply curve.
  - Market equilibrium
  - Demand and supply shifts and equilibrium prices

The Demand Curve

- The demand curve…
  - Graphically shows how much of a good consumers are willing to buy (holding their incomes, preferences, and other things constant) at different prices.
- The demand curve shows the relationship between price and quantity demanded, holding other things constant.
  - Economists frequently use the Latinism "*ceteris paribus*," which means "other things equal".

The "Law" of Demand



Higher price for a good, other things equal, leads people to demand a smaller quantity of the good.

Shifts in Demand

- The "other things equal" assumption is extremely important.
  - If other things are not held constant, demand will *shift*.
- Factors causing demand to shift include
  - Changes in the prices of related goods.
    - Substitutes and complements
  - Changes in income
    - Normal goods and inferior goods
  - Changes in tastes, and
  - Changes in expectations.

Shifts in Demand: Examples

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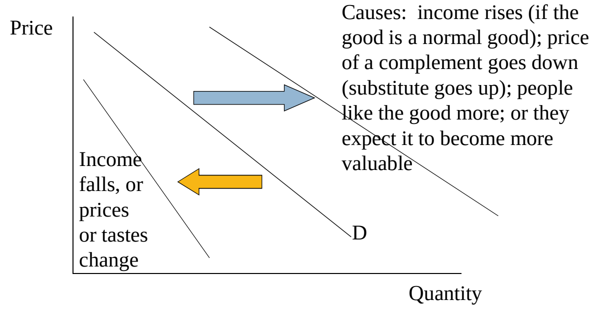

A Pitfall: Confusing Movements Along vs. Shifts in Demand

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- Price changes cause movements along a demand curve.
- Other factors will cause shifts in demand.
  - Increase in the price of peanuts will cause a reduction (shift) in the demand for jelly.
  - Discovery that peanut M&Ms increase lifespan would reduce demand for Butterfingers.
  - Increases in income will (generally) reduce demand for Kraft dinners (or Ramen noodles).
  - Increases in the expected value of a college degree would increase demand for college.

Movements Along vs. Shifts in the Demand Curve

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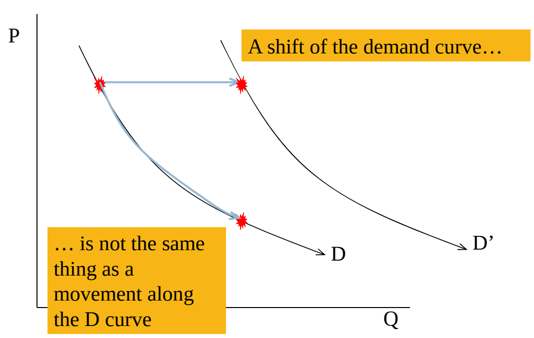

The Supply Curve

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- The supply curve shows the amount of good or service suppliers will be willing and able to sell at a particular time at a particular price, *ceteris parabus.*
  - The supply curve is upward sloping because, all else being equal, as the price of a good rises, people are willing to sell a greater quantity of the good.

The Supply Curve

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Supply Schedule for Tickets

Price of ticket	Quantity of tickets supplied
$350	8,800
300	8,500
250	8,000
200	7,000
150	5,000
100	2,000

What Causes Shifts in the Supply Curve?

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- Changes in input prices.
  - An *input* is a good that is used to produce another good.
    - An increase in the price of steel will lower the supply of automobiles.
  - Changes in technology.
    - Better engineering can increase the supply of computers. More computers will be supplied at a given price.
  - Changes in expectations.
    - Changing diet fads will reduce the supply of products like "low carbohydrate bread and pasta."

Movement Along and Shifts in the Supply Curve

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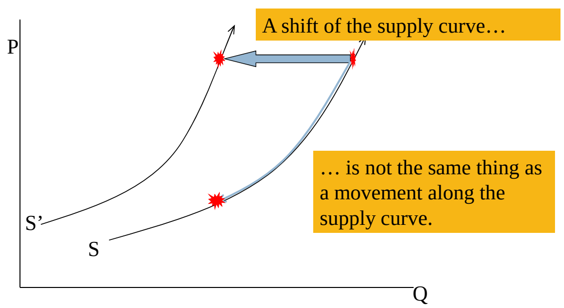

Market Equilibrium

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- A *competitive market* is in equilibrium when price has moved to a level at which quantity demand equals quantity supplied of that good.
  - Competitive markets have many buyers and sellers and none is large enough to individually affect the price.
- Why do markets reach an equilibrium?
  - If prices are too high, there is excess supply (a surplus) and people will lower prices.
  - If prices are too low, there is excess demand (a shortage) and people will raise prices.

Market Equilibrium

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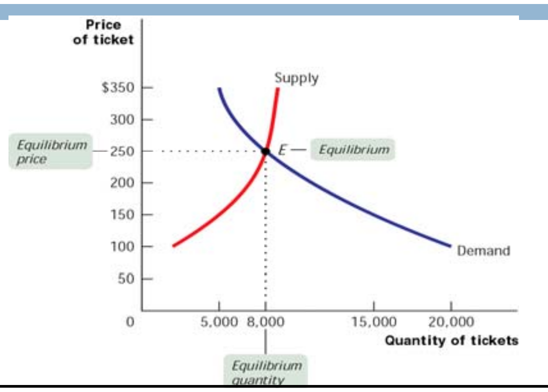

An Example

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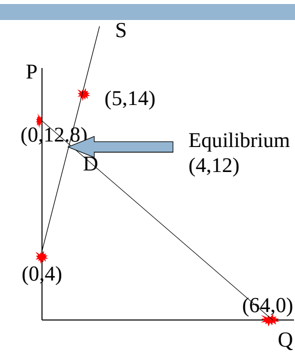
- Demand is Q = 64-5P
- Supply is P=4+2Q
- Solve for the equilibrium, graph your result.
- D: Q=64-5P
- S:Q=-2+.5P, set D=S
- Implies 64-5P=-2+.5P
- 5.5P=66, implies P=12 and Q=4



Prices Above Equilibrium Result in a Surplus

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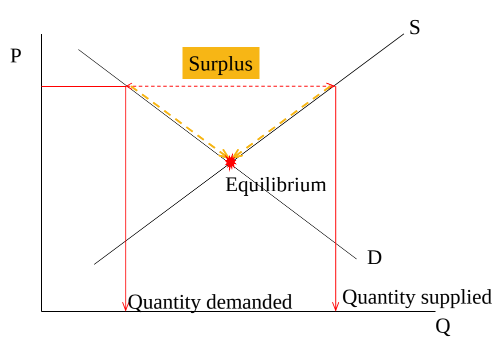

Price Below Its Equilibrium Level Creates a Shortage

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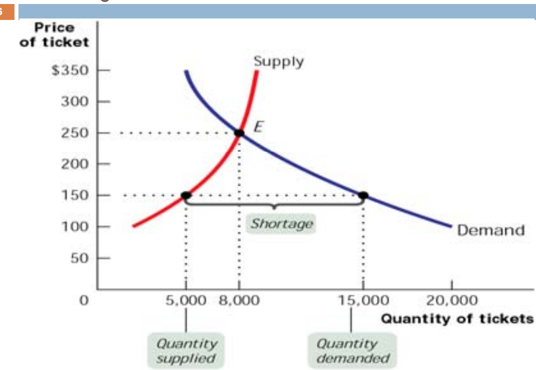

Analyze the (short run) Market for Diet Dr. Pepper if the Surgeon General Says It Promotes Weight Loss

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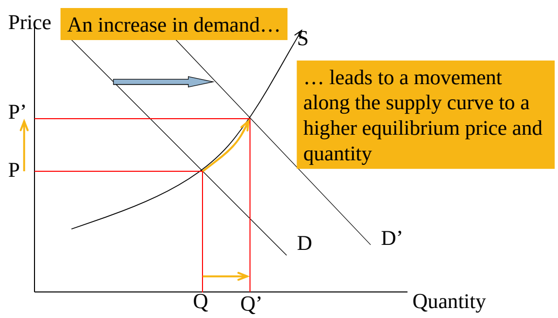

Analyze the Orange Market if Florida has a Wisconsin Winter

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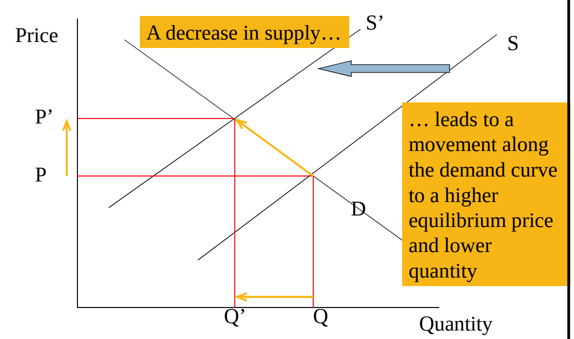

Simultaneous Shifts of the Demand and Supply Curves: Two Examples

- Bad weather in Florida, and fruit causes hair loss
- Manufacturing efficiencies and viruses