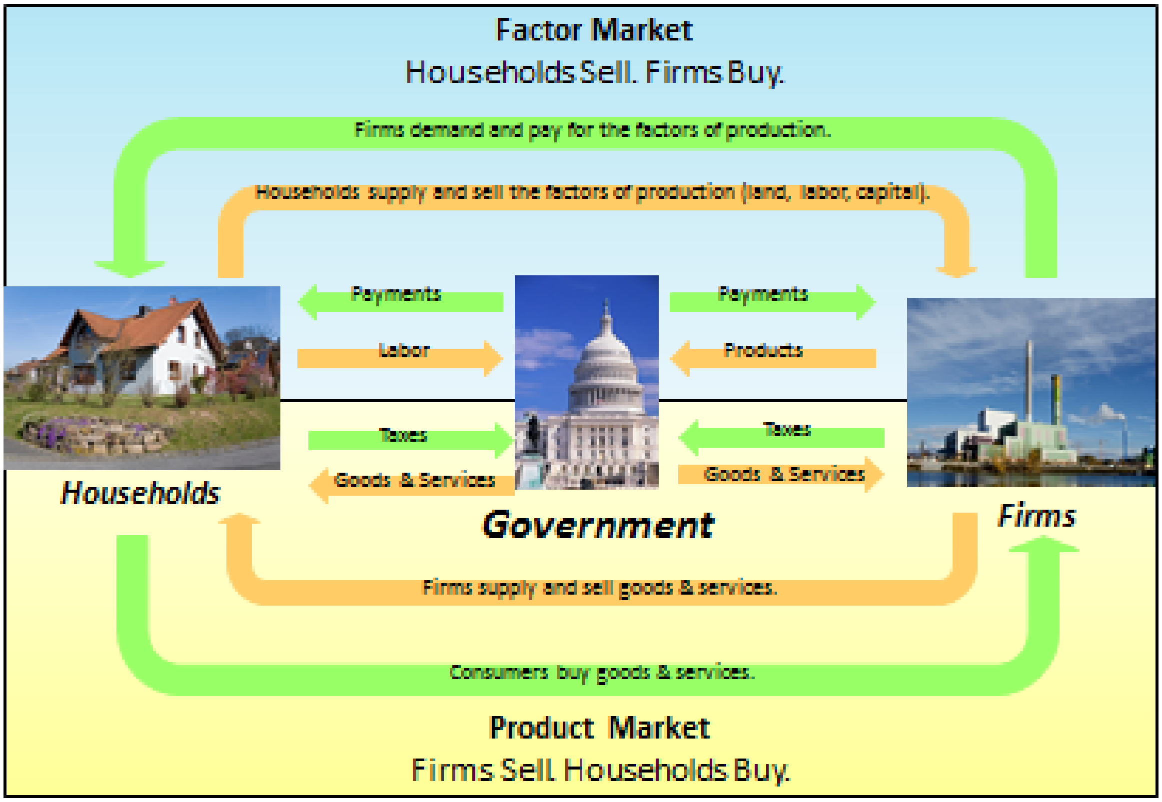
Name ____________________

<u>**Economics**</u>

Unit 4 – Supply, Demand, & the Role of Price in a Market Economy

Student Note Packet

Circular Flow of Economic Activity



Price

- The dollar amount someone must ___________ in order to purchase a product
- How price results in a mutually ______________ transaction
    - To the purchaser, the product being purchased is of greater ___________ to him/her than the money
    - To the seller, the money is of greater ______________ than the product being sold
    - Both sides of the transaction feel that they are getting __________ than they are giving up

Price	Quantity

Demand

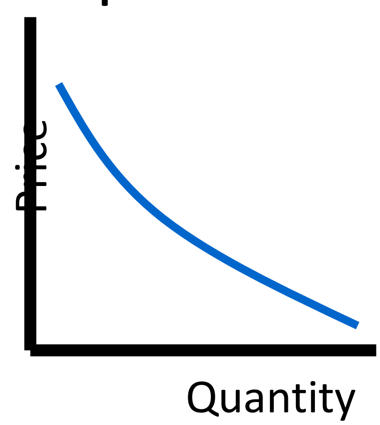
- The ________________ of a specific good or service consumers are **willing** and **able** to purchase at various ____________ at a specific time
- Specific elements to definition
    - ***Quantity Demanded***: how much of a good or service consumers would want at a _________________ price
    - ***Willingness To Buy***: only concerned with consumers who actually would ________ to buy the product
    - ***Ability To Buy***: only concerned with consumers who actually have the ______________ to buy the product
    - **At a Specific Time**: demand continually changes, so this is a ____________ for a specific time (or period of time)
    - **Overall (Market) Demand** = the sum _________ of all quantities sold at all the various prices at which it is sold

Law of Demand

- The ***lower*** the price, the _______________ the product will be demanded
    - As price goes ______________, the quantity demanded goes _______
- The ***higher*** the price, the ______________ the product will be demanded
    - As price goes ________, the quantity demanded goes ____________

Typical Demand Curve Graph

1. Generally ________________ sloping
2. Not necessarily a _______________ line
3. Slope (rate of change) may be ______________ or ________ (or both)



Factors That Affect Consumers' Spending Behavior

1. Law of Diminishing Marginal Utility

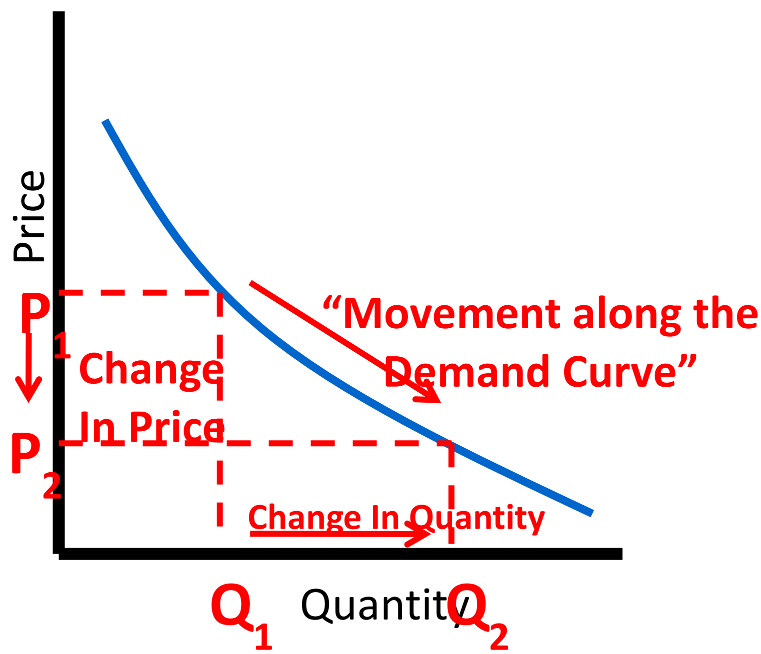
- Consumers receive less additional ____________________ from each additional unit purchased

2. Income Effect

- Because of scarcity, income is ____________
- If the price of a product goes up, you can't buy as much of that product as you could at the _____________ price

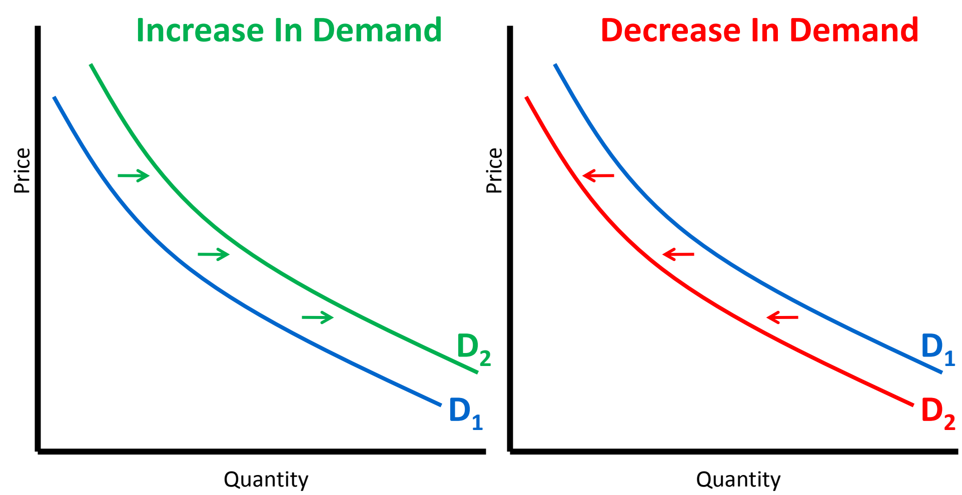
3. Substitution Effect

- Sometimes, two (or more) different products can satisfy the ________ want
  - Called ***substitute goods***
- If the price of a product goes up, some consumers may ____________ their demand to the substitute product
- All 3 factors cause consumers to react in ______________ ways to a change in the price of a good or service.
- As consumers buy more in response to a decrease in price (or less in response to an increase in price), quantity demanded is said to "__________ along the demand curve."
- Only a change in __ ___________ causes a change in ***quantity demanded***.



Demand Shifters

- Factors that cause a change in ______________ _______________
  - Quantity demanded is increased (or decreased) at ***all*** prices
  - ***Not*** just ________________ along the demand curve
- Results in a need to ____________ the demand curve to reflect the new overall demand
  - Increases in demand are shown as a shifting of the demand curve to the _____________
  - Decreases in demand are shown as a shifting of the demand curve to the _____________



Demand Shifter:
Changes In Income

- Increases in income generally lead to ______________ in peoples' demand for goods & services
- Decreases in income generally lead to _____________ in peoples' demand for goods & services
- Individuals whose incomes increase are willing to buy __________ of a given product at a given price

Demand Shifter:
Changes In Number of Consumers

- Increases in the number of consumers generally lead to ______________ in market demand for goods & services
- Decreases in the number of consumers generally lead to _____________ in market demand for goods & services

Demand Shifter:
Changes In Consumer Tastes & Preferences

- When consumers view a specific product more favorably, this leads to an _____________ in demand for that product
- When consumers view a specific product less favorably, this leads to a _______ in demand for that product

Demand Shifter:
Changes In Consumer Expectations

- Prices do not actually have to rise or fall to cause consumers to change their ___________________
    - The expectation that the price may rise or fall may be enough
- If you expect the price of a product you use to go up, you may ______________ your demand for the product now so you get it before the price goes up
- If you expect the price to go down, you may _____________ your demand now and wait for the price goes down

Demand Shifter:
Changes In The Price of Substitute Goods

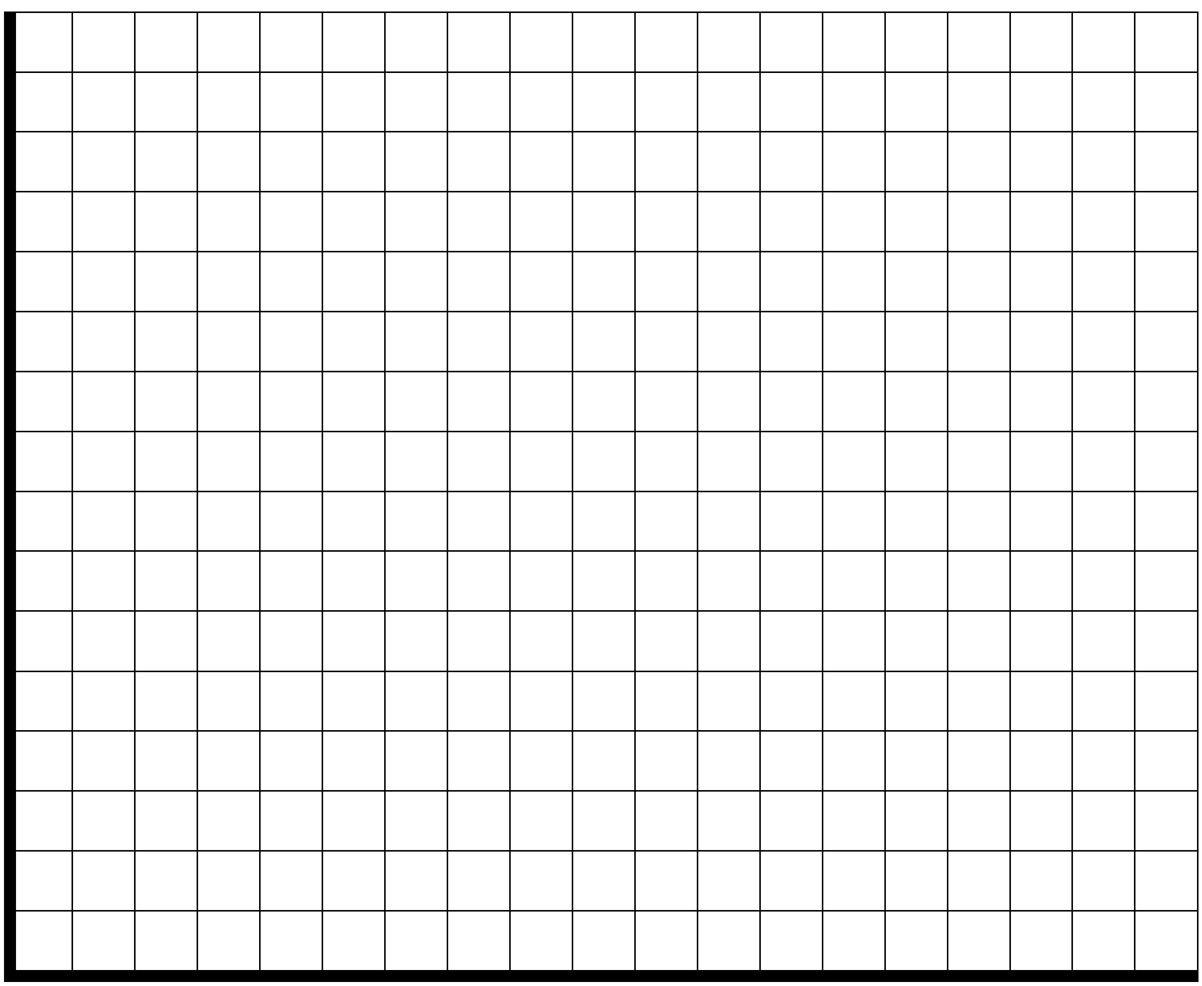
- When two products are substitute goods, consumers consider them _________ enough to use either to satisfy the same want
- If the price of a product that people use instead of yours goes up, consumers generally will purchase _______________ of your product
- If the price of the substitute product goes down, consumers using your product may start wanting the substitute instead

Demand Shifter:

Changes In The Price of Complementary Goods

- ***Complementary Goods***= goods that are used ____________________
  - Ex: Hot Dogs & Hot Dog Buns
- When the price of that complimentary good goes up, demand for it will go _____________; so will demand for the other product
- If the price of the complementary good goes down, demand for it will go up; and so will demand for the other product

Price	Quantity



Supply

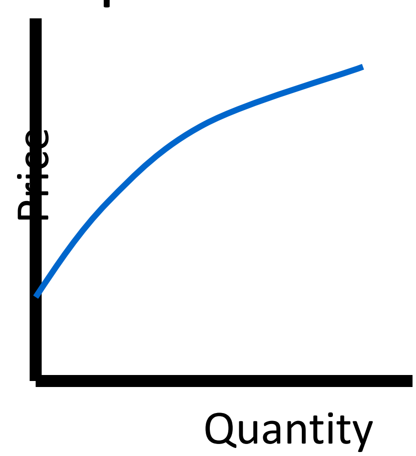
- The _______________ of a specific good or service that producers are **willing** and **able** to sell at various _____________ at a given time
- Specific elements to definition
  - ***Quantity Supplied***: how much of a good or service producers would provide at a ________ price
  - ***Willingness To Sell***: only concerned with producers who actually would ________ to sell the product
  - ***Ability To Sell***: only concerned with producers who actually have the _____________ to sell the product
  - ***At a Specific Time***: supply continually changes, so this is a _____________ for a specific time (or period of time)
- ***Overall (Market) Supply***= the sum _____________ of all quantities supplid at all the various prices at which it could be sold

Law of Supply

- The ***lower*** the price, the _________ willing producers are to sell the product
  - As price goes _______, the quantity supplied goes _________
- The ***higher*** the price, the ________ willing producers are to sell the product
  - As price goes _______, the quantity supplied goes _________

Typical Supply Curve Graph

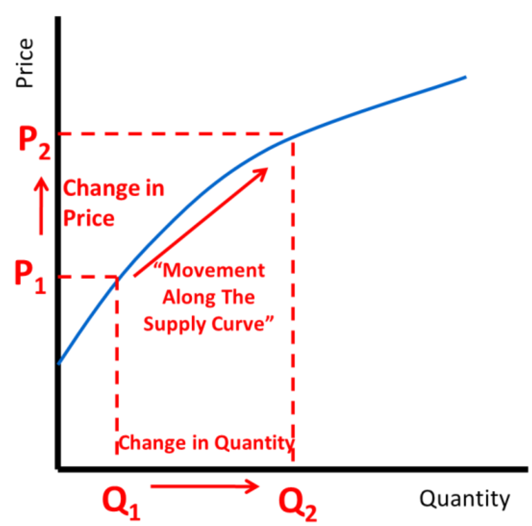
- Generally __________ sloping
- Not necessarily a _________ line
- Slope (rate of change) may be ________ or ________ (or both)



Reasons Price & Quantity Move In The Same Direction for Supply

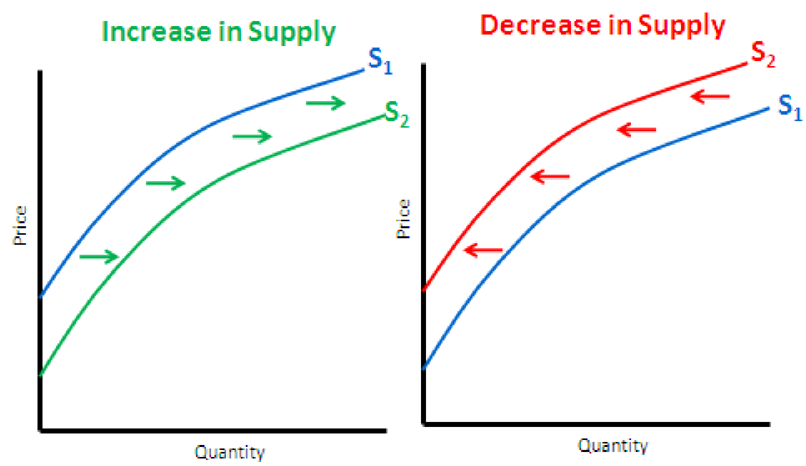
- ***Production Decisions by __________ Producers***
  - Producers seek to _____________ profits & minimize losses
  - They will increase their production of a good or service if they expect the profits on that item to _______________
  - They will decrease their production of a good or service if they expect the profits on that item to ____________ or result in a __________
- ***Market Entries & Exits***
  - When the price of a good or service increases, new firms may enter the market because they see _____________ for a profit
  - When the price of a good or service decreases, some firms may ________ the market because they want to avoid losses
    - The cost to them may ___________ what the decreased selling price is
  - Firms all have scarce resources that have alternative uses
    - They will generally allocate their resources _______________ those activities that are the most efficient use (profit motive)
    - They will generally allocate their resources _________ from those activities that are unable to generate their desired profit or result in a loss

- Both factors cause producers to react in ____________ ways to a change in the price of a good or service.
- As producers provide more in response to an increase in price (or less in response to an decrease in price), quantity supplied is said to "_______ along the supply curve."
- Only a change in __________ causes a change in ***quantity supplied***.



Supply Shifters

- Factors that cause a change in _________ __________
  - Quantity supplied is increased (or decreased) at _____ prices
  - ***Not*** just ________________ along the supply curve
- Results in a need to ____________ the supply curve to reflect the new overall supply
  - Increases in supply are shown as a shifting of the supply curve to the ________
  - Decreases in supply are shown as a shifting of the supply curve to the ________



Supply Shifter:
Change in the Cost of Inputs

- When the cost of an input (factor of production) goes ___________ , the product becomes more profitable at any given price, so supply goes ____
- If the cost of an input goes _______, the product becomes less profitable and supply goes _________

Supply Shifter:
Change in the Number of Producers

- When new producers enter a market, their production is added to the existing production, so supply goes ______
- When producers exit a market, their production is no longer being added to the market, so supply goes ___________

Supply Shifter:
Change in Conditions Due To Natural Disasters or International Events

- Natural disasters (like drought, crop freezes, hurricanes, etc.) can destroy crops or other resources needed for production, so supply goes _______
- International events (wars, threat of wars, etc.) can destroy resources or make them unavailable, so supply goes ______

Supply Shifter:
Change in Technology

- Technological advances can reduce the amount of labor needed to produce a good, thereby ___________ costs and increasing productivity
- Technological advances that lower costs generally lead to supply going _______

Supply Shifter:
Change in Producer Expectations

- Producers often make supply decisions based on the ________________ that prices will rise or fall
  - The price doesn't actually have to change; just the expectation that it might is enough for some producers
- If producers expect the future price of a product to fall, they may decide to increase production now to take advantage of the current higher price
  - This will cause supply of that product to go ________
- If producers expect the future price of a product to rise, they may hold off on production now (or produce now but store the product in warehouses instead of selling it) so they might take advantage of the higher future price
  - This will cause supply of that product to go ________

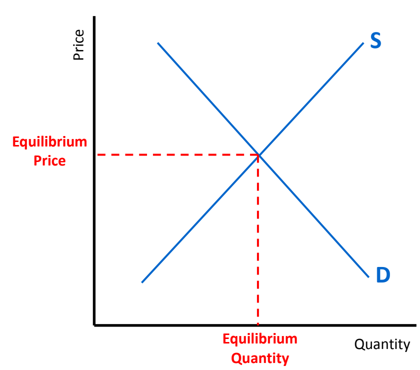
Supply Shifter:
Change in Government Policy

- Government actions can influence decisions by producers
- Government often provides loans, grants, tax credits or ***subsidies*** (direct cash payments) to producers in order to entice them to produce a product
  - This will ____________ the supply of that product
- Government may increase taxes on a product (or producers of a product), making it less profitable to produce that product
  - Taxes are another "cost of doing business" for companies, and increasing that cost can lead to some producers' efforts becoming less profitable and an inefficient use of their scarce resources (time, capital, etc.)
  - This will ____________ the supply of that product

Market Equilibrium

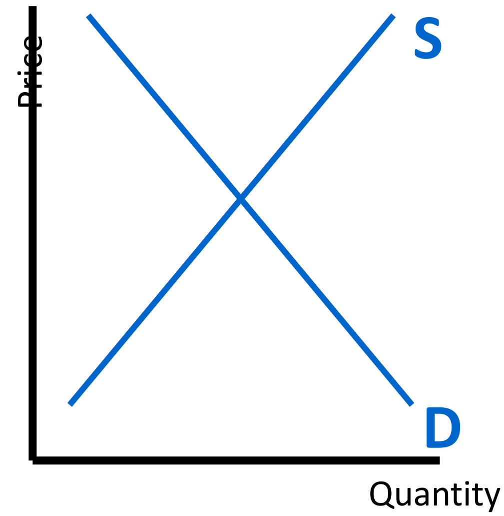
- The point where buyers & sellers ____________
- ***Equilibrium Price***
  - The price at which the quantity demanded by consumers is ____________ to the quantity producers are willing to supply
  - Also called ***market-clearing price***
    - All consumers willing to purchase at that price are able to satisfy their want for that product
    - All producers who produce the product at that price are able to sell all of their products
- ***Equilibrium Quantity***
  - The quantity that is both demanded and supplied at that price

Graph of Equilibrium



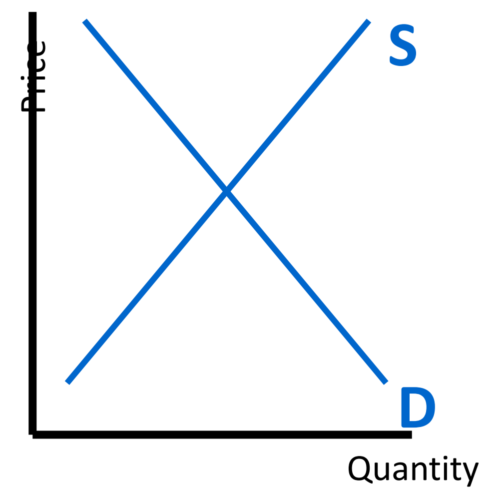
Surplus

- Results when price is too ________
  - Producer sets price at which the amount he/she is willing to produce is ___________ than the amount consumers are willing to buy at that price
- Inefficient use of _______________
  - Resources that could be used in more productive ways is instead tied up in inventory sitting on a shelf that no one wants to buy at that price



Shortage

- Results when price is too ________
  - Producer sets price at which the amount he/she is willing to produce is __________ than the amount consumers are willing to buy at that price
- Results in:
  - Unsatisfied _______________ demand
  - Lost __________ & profits for producer



Prices Move To Bring Markets Into Balance

- Producers set ____________
    - Producers know what quantity they are willing to _________ at that price
    - Producers are hoping that the quantity demanded for the product at that price will _______ what they produced
- If producers set price too high, surpluses will occur
    - Producers will have _______ quantities of the product that consumers are unwilling to buy at that price
    - Producers will lower price
    - The lower price will create an incentive for:
        1. Some existing producers to ___________ production
        2. Other existing producers to ___________ the market
        3. More consumers to ____________ the market to take advantage of the lower price
- If producers set price too low, shortages will occur
    - Consumers will have unsatisfied ____________
    - Consumers will start to bid higher prices for the product, driving the price up
    - The higher price will create an incentive for:
        1. Existing producers to ___________ production
        2. Lure _________ producers into the market
        3. Convince some consumers to _________ the market because they are unwilling to pay higher price
- Pressure to avoid surpluses and shortages results in price moving toward ___________________
    - The Laws of Supply & Law of Demand work together to _________ the price of a good or service to a level where the quantity demanded and the quantity supplied are equal
    - This is why markets are said to be governed by the laws of supply & demand

How Do Shifts in Demand or Supply Affect Markets?

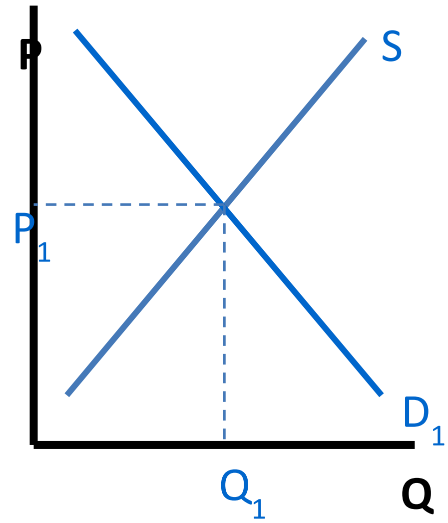
- Shifts in Demand or Supply change the market's _______________ point
- Shifts in market demand & market supply make changes to equilibrium that are _____________________
    - These changes to equilibrium are easily visualized on a graph of supply & demand

3 Questions to Ask About Demand & Supply Shifts

1. *Does the event affect demand or supply?*
2. *Does the event shift the demand or supply curve to the right or to the left?*
3. *What are the new equilibrium price & quantity, and how have they changed as a result?*

An Event Increases Market Demand

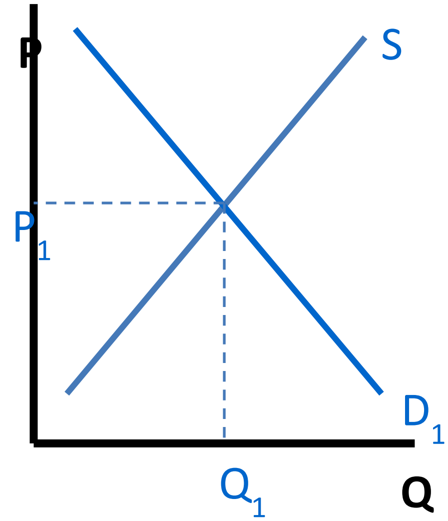
- There is a __________ quantity demanded at all prices
  - This is illustrated by a shift of the demand curve to the ________
- Results:
  - Equilibrium Price _____________
  - Equilibrium Quantity _____________



- Why does an increase in demand result in an increase in equilibrium price and equilibrium quantity?
  - An increase in demand means that, at any price, __________ consumers are willing and able to make that purchase.
    - Those consumers will start to __________ each other for the item (***price increase***).
  - Producers, seeing that it will be ________ profitable to provide that product, will begin to produce more of that product.
    - Existing producers will __________ production, and some new producers may enter the market (***quantity increase***).

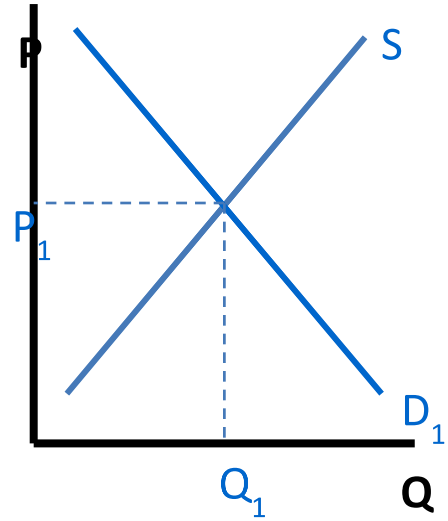
An Event Decreases Market Demand

- There is a __________ quantity demanded at all prices
  - This is illustrated by a shift of the demand curve to the ________
- Results:
  - Equilibrium Price _________
  - Equilibrium Quantity ______________



- Why does a decrease in demand result in a decrease in equilibrium price and equilibrium quantity?
  - A decrease in demand means that, at any price, __________ consumers are willing and able to make that purchase.
  - Producers will start to ________________ each other for the item to try to get customers to buy their product (***price decrease***).
- Producers, seeing that it will be ________ profitable to provide that product, will begin to produce less of that product.
  - Existing producers will ________________ production, and some producers may exit the market (***quantity decrease***).

An Event Increases Market Supply

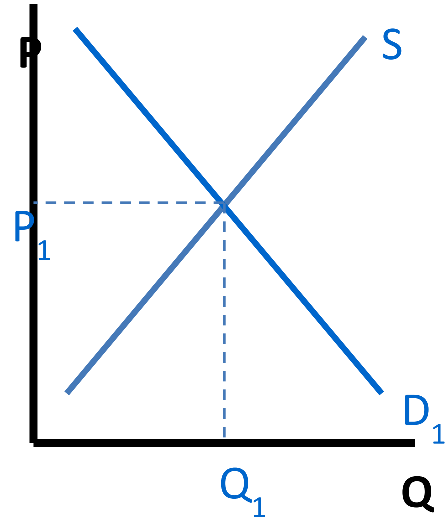


- There is a _______________ quantity supplied at all prices
  - This is illustrated by a shift of the supply curve to the _____________
- Results:
  - Equilibrium Price _________
  - Equilibrium Quantity _____________

- Why does an increase in supply result in a decrease in equilibrium price and increase in equilibrium quantity?
  - An increase in supply means that, at any price, ___________ producers are willing and able to provide that product.
    - Producers will start to ________________ each other for the item to try to get customers to buy their product (***price decrease***).
  - Consumers will see that it is ___________ affordable to buy that product
    - Consumers will begin to buy ___________ of the product (***quantity increase***).

An Event Decreases Market Supply

- There is a __________ quantity supplied at all prices
    - This is illustrated by a shift of the supply curve to the ________
- Results:
    - Equilibrium Price _________
    - Equilibrium Quantity _____________



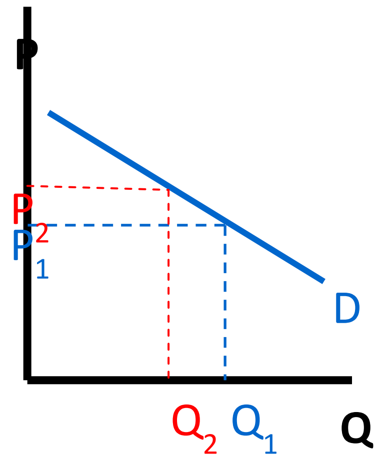
- Why does a decrease in supply result in an increase in equilibrium price and decrease in equilibrium quantity?
    - A decrease in supply means that, at any price, ___________ producers are willing and able to provide that product.
        - Producers will start to __________ their price for the item to try to get cover additional costs of production (***price increase***).
    - Consumers will see that it is __________ affordable to buy that product
        - Consumers will begin to buy __________ of the product (***quantity decrease***).

Elasticity

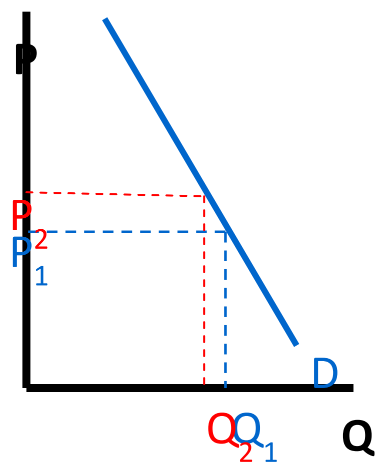
- The _______________ to which a quantity demanded or quantity supplied changes in response to a change in price
    - Quantity demanded or supplied for some products is ___________ sensitive to changes in price
    - Quantity demanded or supplied for some products is ______ sensitive to changes in price

Elasticity of Demand

- A product for which the quantity demanded changes _____________ for a given change in price is referred to as having ***elastic demand***
    - A small change in price results in a __________ change in the quantity demanded
    - Graph of demand curve is relatively ___________



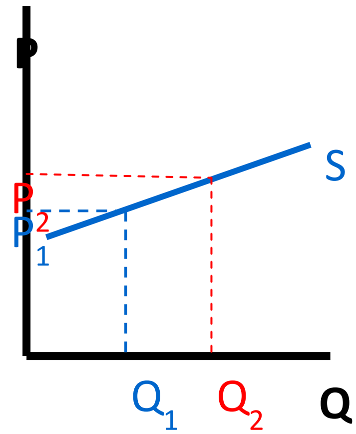
- A product for which the quantity demanded changes _____________ for a given change in price is referred to as having ***inelastic demand***
    - Any change in price results in a _______ change in the quantity demanded
    - Graph of demand curve is relatively ___________



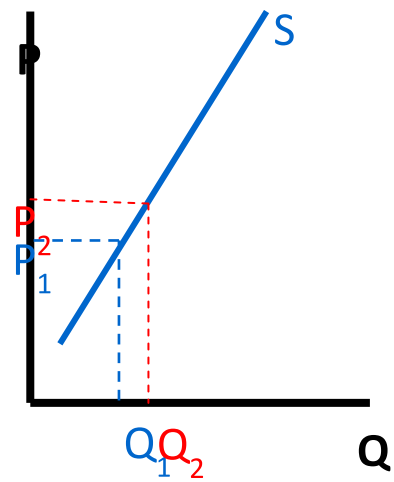
Factors that Influence Elasticity of Demand

- ***Availability of ___________________***
  - The quantity demanded for a product tends to be ________ when it has more close substitutes
    - Consumers start buying the substitutes
  - The quantity demanded for a product tends to be _____________ when it has few substitutes
    - Consumers don't have other options for purchase
- ***Price Relative to _________________***
  - "Big ticket" items whose price will take a larger portion of a consumer's income tend to be _____________
    - Price increase will tend to take a large additional chunk of the consumer's income
    - Price decrease will allow the consumer to save a much larger portion of his/her income
  - Inexpensive items tend to be _______________
    - Price increase will tend to take very little additional income
    - Price decrease will allow the consumer to save a very small portion of his/her income
- ***Necessities versus Luxuries***
  - A product that is very needed by the consumer will have _____________ demand
    - Consumer must have the product, so he/she is willing to pay whatever is necessary
  - A product that is a "nice to have" luxury that is not critical for day-to-day living will have more ___________ demand
    - Consumer can easily do without the product, so he/she just stops buying it
- ***Time Needed to ____________ to Price Change***
  - A product for which a lot of time is needed to adjust to price changes has _______________ demand
    - Consumer may need time to adjust lifestyle & purchasing habits to compensate for the price change
  - A product for which little time is needed to adjust to price changes has _____________ demand
    - Consumer can adjust lifestyle & purchasing habits quickly

Elasticity of Supply



- A product for which the quantity supplied changes ______________ for a given change in price is referred to as having ***elastic supply***
    - A small change in price results in a __________ change in the quantity supplied
    - Graph of supply curve is relatively __________



- A product for which the quantity supplied changes ______________ for a given change in price is referred to as having ***inelastic supply***
    - A small change in price results in a __________ change in the quantity supplied
    - Graph of supply curve is relatively __________

Factors That Influence Elasticity of Supply

- __________________ ***of Inputs***
    - If factors of production are readily available to respond to an increase in price, the product has __________ supply
        - Can more easily get the resources needed to increase production if the price increases
    - If factors of production are not readily available to respond to an increase in price, the product has ___________ supply
- _____________ ***of Inputs***
    - How quickly a producer can get the inputs from their ___________ to where he/she needs them for production
    - A product for which the producer can quickly get the inputs from their source has _________ supply
        - Can more quickly get the inputs needed to increase production

- A product that will take a while to get the inputs from their source has _____________ supply
  - Cannot quickly get the inputs needed to increase production
- ***Storage ________________***
  - How easily can the product be ______________ as it moves from producer to consumer
  - A product that can be stored more easily if the price goes down or up has __________ supply
    - Can be warehoused and saved until price goes back up
  - A product that is perishable and therefore not stored easily for long periods of time has _____________ supply
    - Product will go bad before it can be sold if it is taken off the shelves when price goes down
- ***Time Needed to _____________ to a Price Change***
  - A product for which production *can* be adjusted quickly has ___________ supply
    - Can more rapidly adjust production in response to a price change
  - A product for which production *cannot* be adjusted quickly has ________ supply
    - Difficult to adjust production in response to a price change

Roles of Prices in a Modern Mixed Economy

- ***Prices Convey _____________________ to Consumers & Producers***
  - For consumers, price signals the __________________ cost of buying any product
    - The higher the price, the higher the opportunity cost
  - For producers, price tells producers what consumers ____________
    - Prices above or below equilibrium will result in surpluses or shortages, letting the producer know if he/she has overestimated or underestimated demand
  - Producers use prices to _______________ to the consumers they hope will buy their products
    - If you want to target customers that have lower incomes, you will sell products at lower prices
    - If you want to target customers that have higher incomes, you will sell products at higher prices

- Consumers use price as a measure of the _______________ of the product
  - Products of high quality made with a high degree of skill and/or using expensive materials and technology tend to have higher prices
  - The consumer need not know the details; the price is a measure of that
- ***Prices Create _______________ to Work & Produce***
  - Principle #4: Incentives Matter (people respond to incentives)
  - For producer, price represents potential for ________
    - Rising prices motivate existing firms to produce more and new firms to enter the market
    - Falling prices serve as incentive for firms to cut back on production and avoid losses
- ***Prices Allow Markets to _______________ to Changing Conditions***
  - Prices go up when unexpected _____________ occur due to natural disasters or international events
    - Higher prices incentivize firms to figure out new ways to get the products to consumers
    - More costly ways of producing the product that were once unprofitable may now be profitable
  - Prices give markets the ______________ they need to reach equilibrium even under changing conditions
- ***Prices Allocate _________ Resources Efficiently***
  - Prices guide resources to their most ______________ use
    - Scarce resources have alternative uses
    - Price will guide those resources to use that has the most ________ to consumers
  - Producers "automatically" (due to the incentives created by the price) _____________ to produce more of what is making money & less of what is losing money

Price Controls

- Placing _____________ on how high or low a certain price may be
- Illegal if __________________ do it
    - Called ***price fixing*** and restrains trade
- Legal if ________________________ does it
    - Normally done if they think that the market would set price "unfairly" high for consumers or "unfairly" low for producers
- ***Price Floor***
    - ____________________ price for a product that is __________ market price
    - Why government does it:
        - Want to protect industries who they feel may not survive if price is allowed to drop to market equilibrium price
        - Want to ensure minimum profitability for businesses in that industry
    - As with any product whose price is set above equilibrium, _____________ occur for that product
    - Options for government for dealing with surpluses:
        1. _________ surplus (increase market demand for product)
        2. Pay producers _______ to produce (reduce market supply for product)
    - Consumer __________ because he/she pays price higher than what he/she would pay without the price floor
        - Inefficient use of consumer's scarce resource (money)
        - Paying higher taxes to cover government payments to producers
- ***Price Ceiling***
    - A __________________ price that is set ______________ market equilibrium
    - Why government does it:
        - To protect consumers from paying what, according to the government, is "too much" for a product
    - As with any other price set below equilibrium, ____________ occur for that product
    - How *government* deals with the shortage:
        - ***Rationing*** – government-controlled distribution of the limited supply of the good or service
    - How the *market* deals with the shortage:
        - ***Black Market*** – illegal market in which product is traded at higher price or higher quantities than those allowed by law