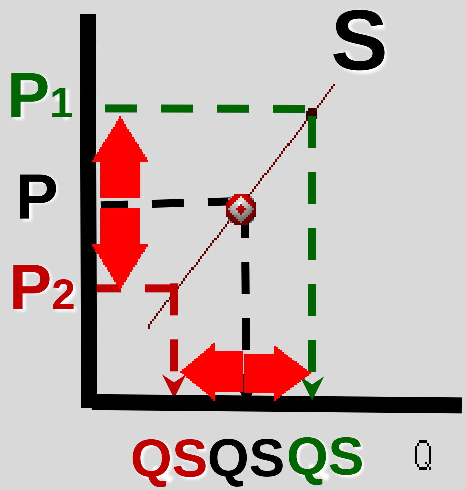
Supply [with Demand]

"Chg in QS"

[Price change]



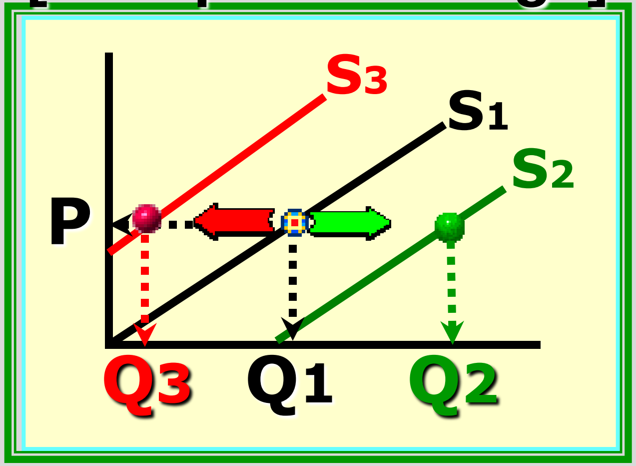
"Law of Supply"

[P incr, QS incr]

[P decr, QS decr]

"Chg in S"

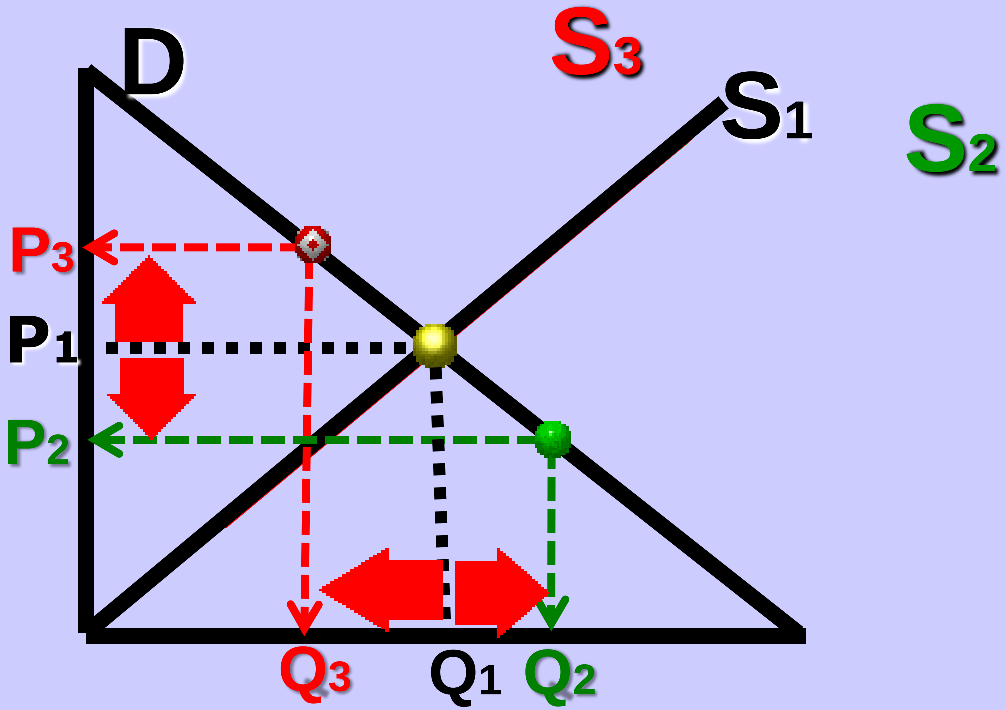
[Non-price change]



Her husband accidentally hit her while playing **The Legend of Zelda.**

Wii "supplied" this black eye.

Change in S [curve] [non-price change] "RATNEST"



Change in QD-Change in Price-Inverse

Change in QS - Change in Price - Direct

A price change triggers either:

Change in QD [inverse] or Change in QS [direct]

and a

Non-price changes trigger either:

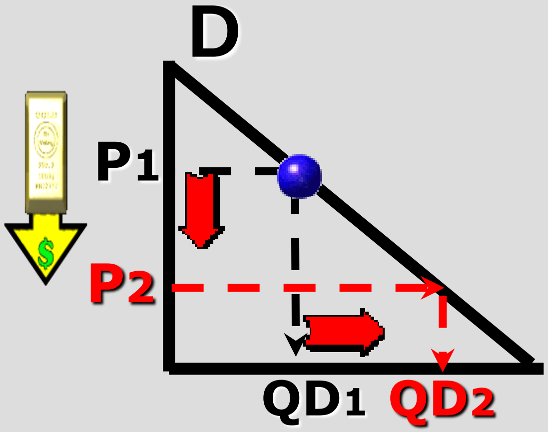
"Change in D" caused by "TIMER"

"Change in S" caused by "RATNEST"

Change in QD ["Change in Price"]

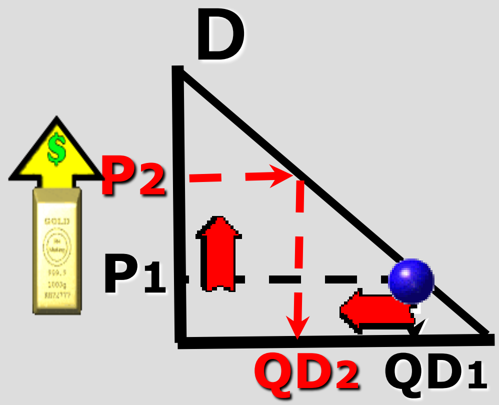
Increase in "QD"

[caused by a "decrease in price"]



Decrease in "QD"

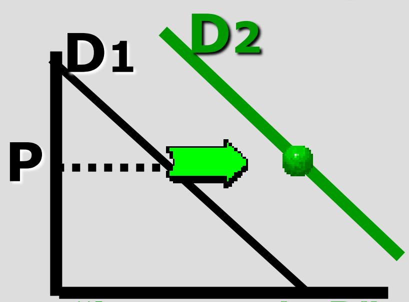
[caused by an "increase in price"]



1. Price change
2. Movement
3. Point to point

["Snap shot of 1 pt in time]

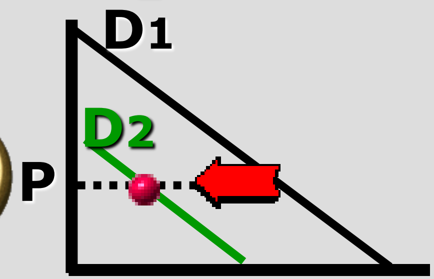
Change in "D" ["TIMER"]



"Increase in D"

1. Non-price
2. Whole curve
3. Shift

["Time passes"]



"Decrease in D"

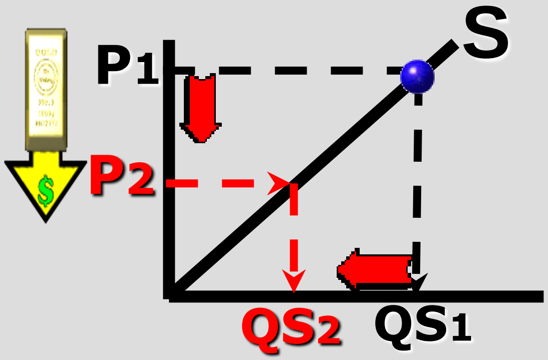
What could cause an "increase in Demand?"

1. Increase in taste
2 .Increase in income [normal good]
3. Decrease in income [inferior good]
4. Increase in market size [# of consumers]
5. Expectations of a shortage
6. Expectations of a price increase
7. Expectations of positive future income
8. Incr in price of a substitute for product "X"
9. Decr in price of a complement of product "X"

Change in QS ["Change in Price"]

Decrease in "QS"

[caused by a "decrease in price"]

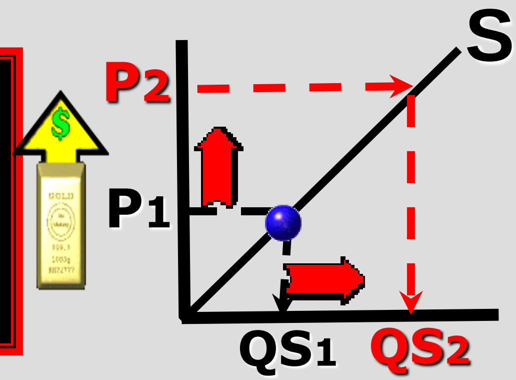


1. Price change
2. Movement
3. Point to point

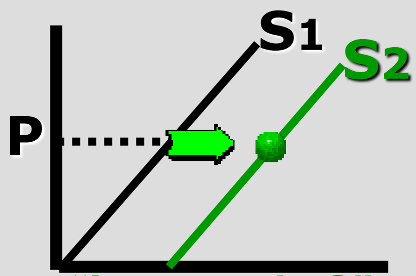
["Snap shot of 1 pt in time]

Increase in "QS"

[caused by an "increase in price"]



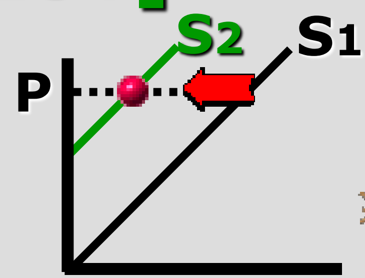
Change in "S" [RATNEST]



"Increase in S"

1. Non-price
2. Whole curve
3. Shift

["Time passes"]



"Decrease in S"

What could cause an "increase in supply?"

1. Decrease in resource cost [wages/raw materials]
2. Decrease in the price of an alternative output for "X"
3. Producer expectations of a price decrease
4. Increase in number of producers
5. Increase in technology
6. Increase in subsidies
7. Decrease in taxes

Quantity Supplied 

vs. Supply

Quantity Supplied [QS] is triggered by a price change.

QS means quantity of a good/service that **producers are willing and able to supply at a given time**.

Supply [S]: [triggered by non-price “RATNEST”]

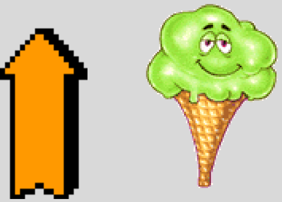
A schedule of the total quantities of a good or service that **producers will supply at different prices** at a given time. **Supply** is **not an amount** but a **behavior**.

Supply is a **bunch of QS’s strung together**.

Price can not cause a change [shift] in “S”.

Price can only cause a change [movement] in “QS”.

Consumers & Producers Feel Differently About High & Low prices

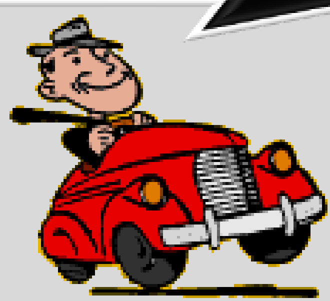


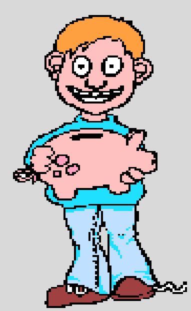
Producers supply more at the higher price because the opportunity cost increases if they don't.

Consumers consume less at the higher price because they now have less money to spend.

Producers supply less at the lower prices because the opportunity cost decreases if they don't.

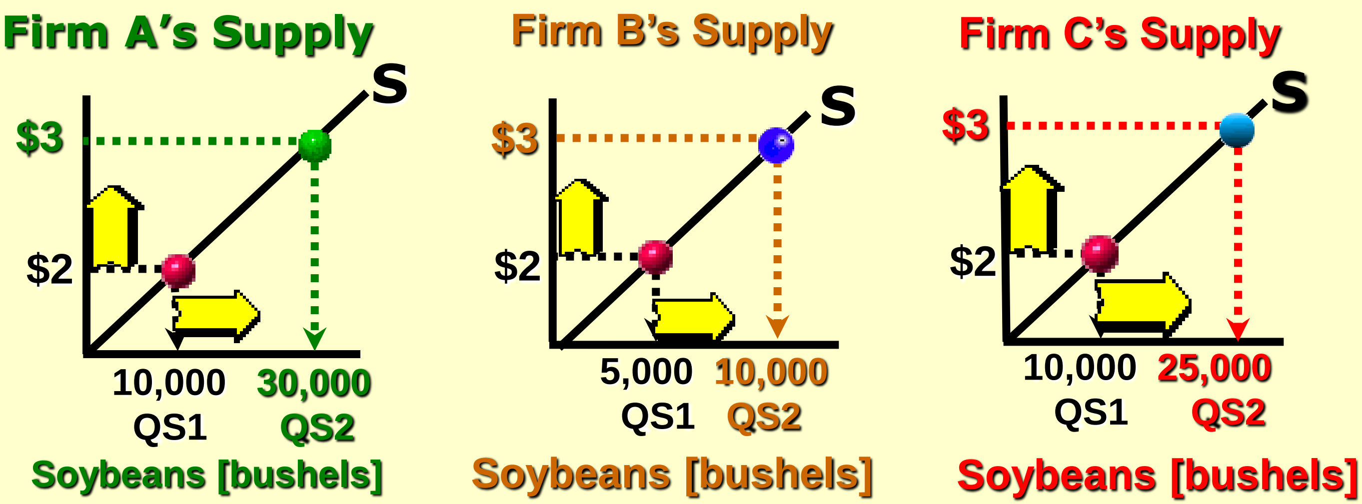
Consumers consume more at the lower price because they now have more money to spend.



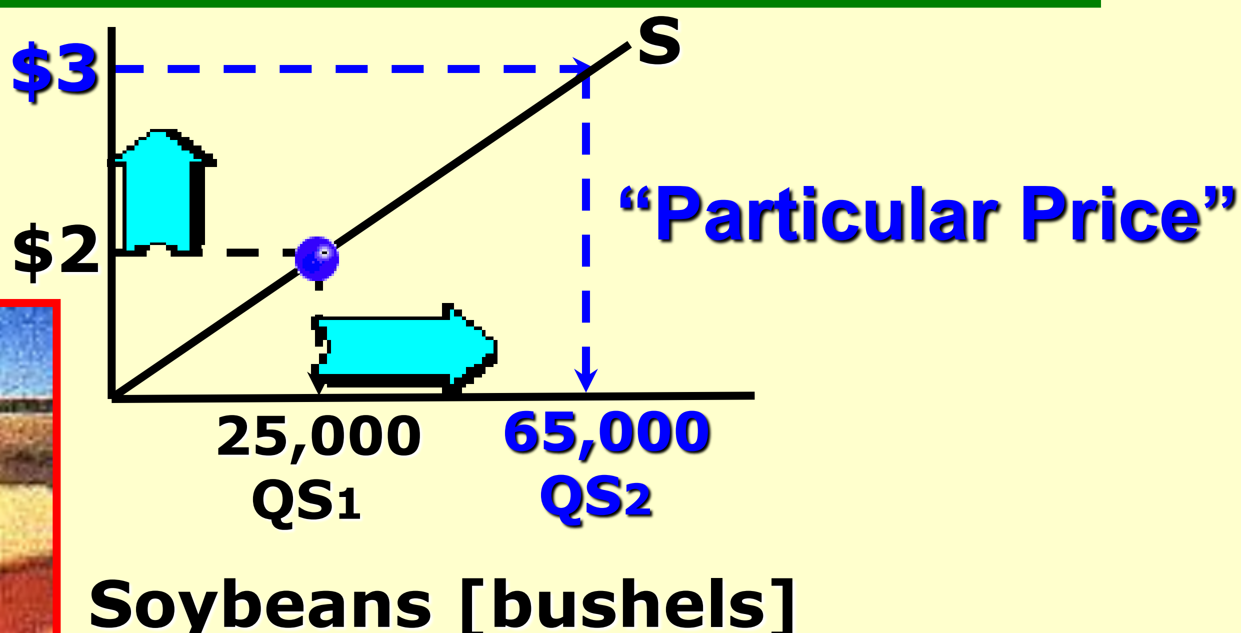


Market Supply Curve

Deriving Market Supply from Individual Firm Supply Curves



Direct – both variables move in same direction.



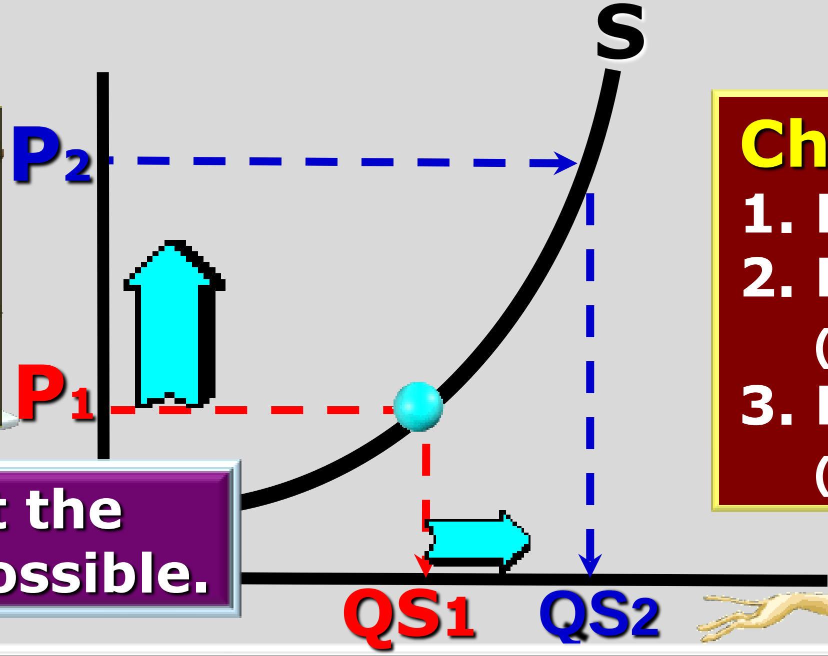
Law of Supply

Price **increases**; QS **increases**
Price **decreases**; QS **decreases** } **Direct**

"S" refers to the **"whole supply curve"** and refers to what producers will supply at **"different prices"**.

"QS" refers to a **"point on the curve"** and refers to what producers will supply at a **"particular price"**.

More of you would supply your labor for $12 than if labor were getting just $7.25 an hour.



Producers want the highest price possible.

Change in "QS"
1. Price change
2. Movement
   (up/down "S" curve)
3. Point to point
   (along "S" curve)

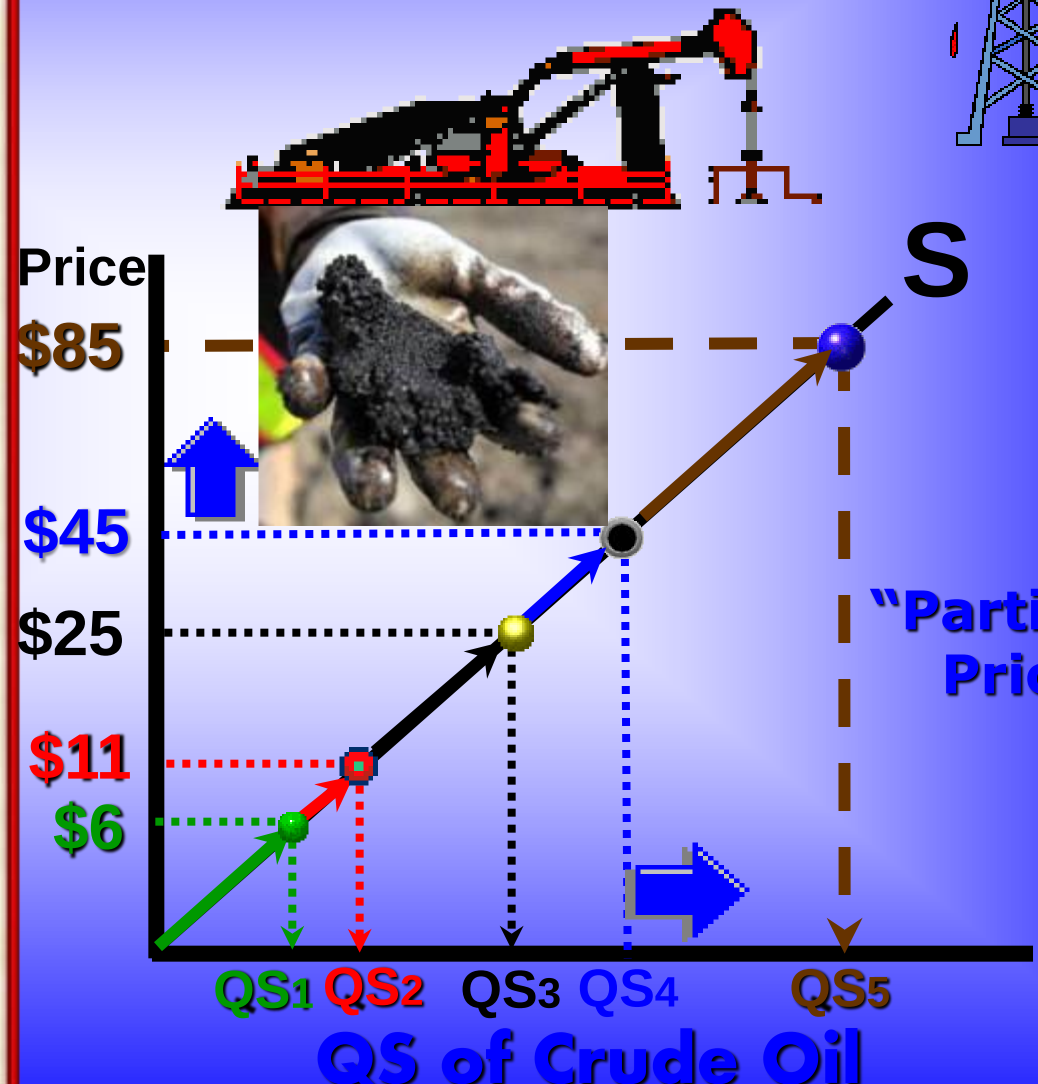
Reasons For Upsloping "S" Curve
1. There is increasing opportunity cost if you don't produce.
2. Current producers produce more [overtime/more shifts]
3. New producers are attracted to the market.

Oil Supply Curve

Oil production cost for Saudi Arabia is **$5.00** per 42-gallon barrel. For Russia, it is **$10.30** per barrel.

It costs about **$15-$20** per barrel to get oil deep in the Gulf of Mexico.

It cost about **$40** to get oil from oil shale's in Colorado. So at $45, they increase production. In Canada, it costs Shell **$75-80** to produce a barrel from the **tar sands of Alberta**. [like getting oil from peanut butter] The Canadians **175 billion bar,** 2nd in volume only to the Saudis. [We get 2.6 million barrels a day there now]



Most Expensive and Cheapest Gas

Most Expensive Gas

1. Turkey $ 9.63
2. Eritrea 9.59
3. Norway 7.91
4. Greece
5. Monaco
6. Denmark
7. Sweden
8. Belgium
9. U.K.
10. Netherlands

Least Expensive Gas

1. Venezuela 6¢
2. Saudi Arabia 45¢
3. Libya 54¢
4. Bahrain 70¢
5. Turkmenistan 72¢
6. Kuwait 81¢
7. Qatar 88¢
8. Egypt 1.13¢
9. Oman 1.18¢
10. Algeria 1.19¢

Oil Imports to the U.S.

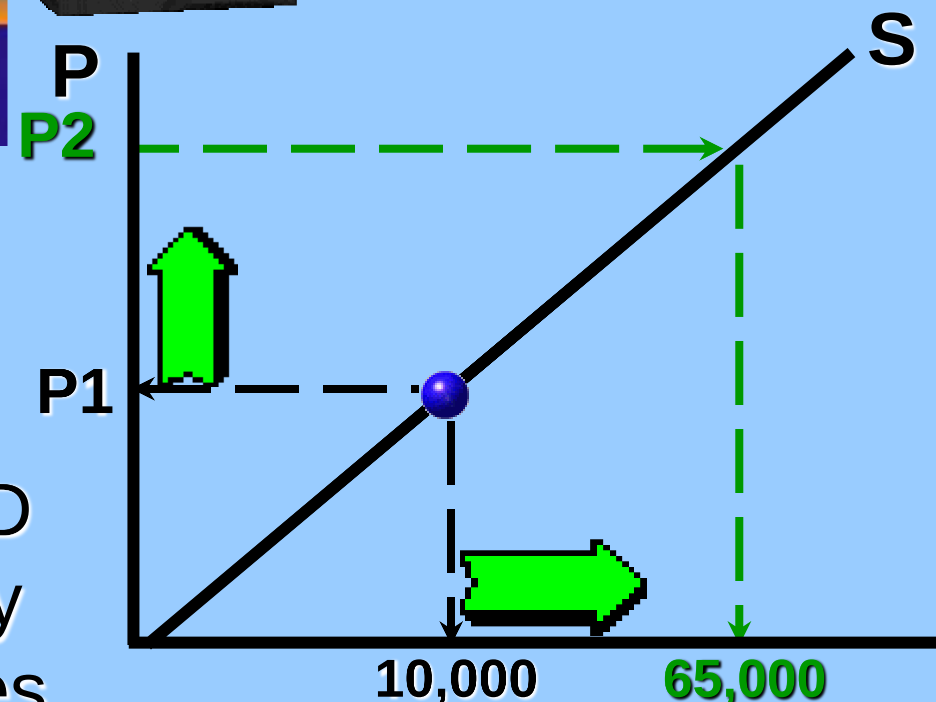
% of the 51% Oil Imports

1. Canada	25.2% [2.6 mil. bar. day]
2. Saudi Arabia	12%
3. Nigeria	11%
4. Venezuela	10%
5. Mexico	9.0%
6. Russia	4.8%
7. Algeria	4.2%
8. Angola	3.9%
9. Iraq	3.9%
10.Iraq	3.9%
11. Brazil	2.6%
12. Other	24.4%

*We use 21 million bar. Daily [import 11.8]

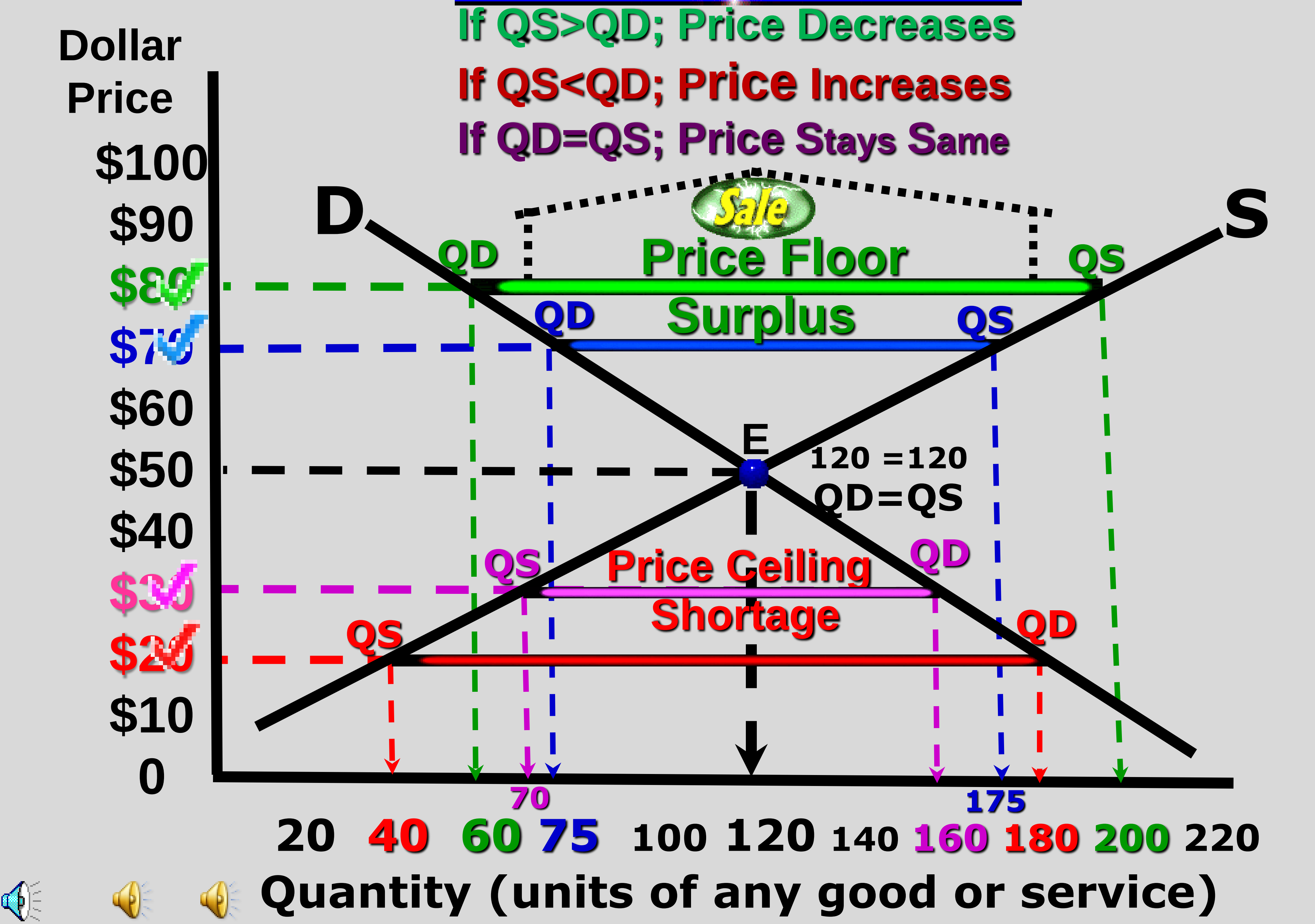
World's Oil Consumption

Change In QS For DVD Rentals

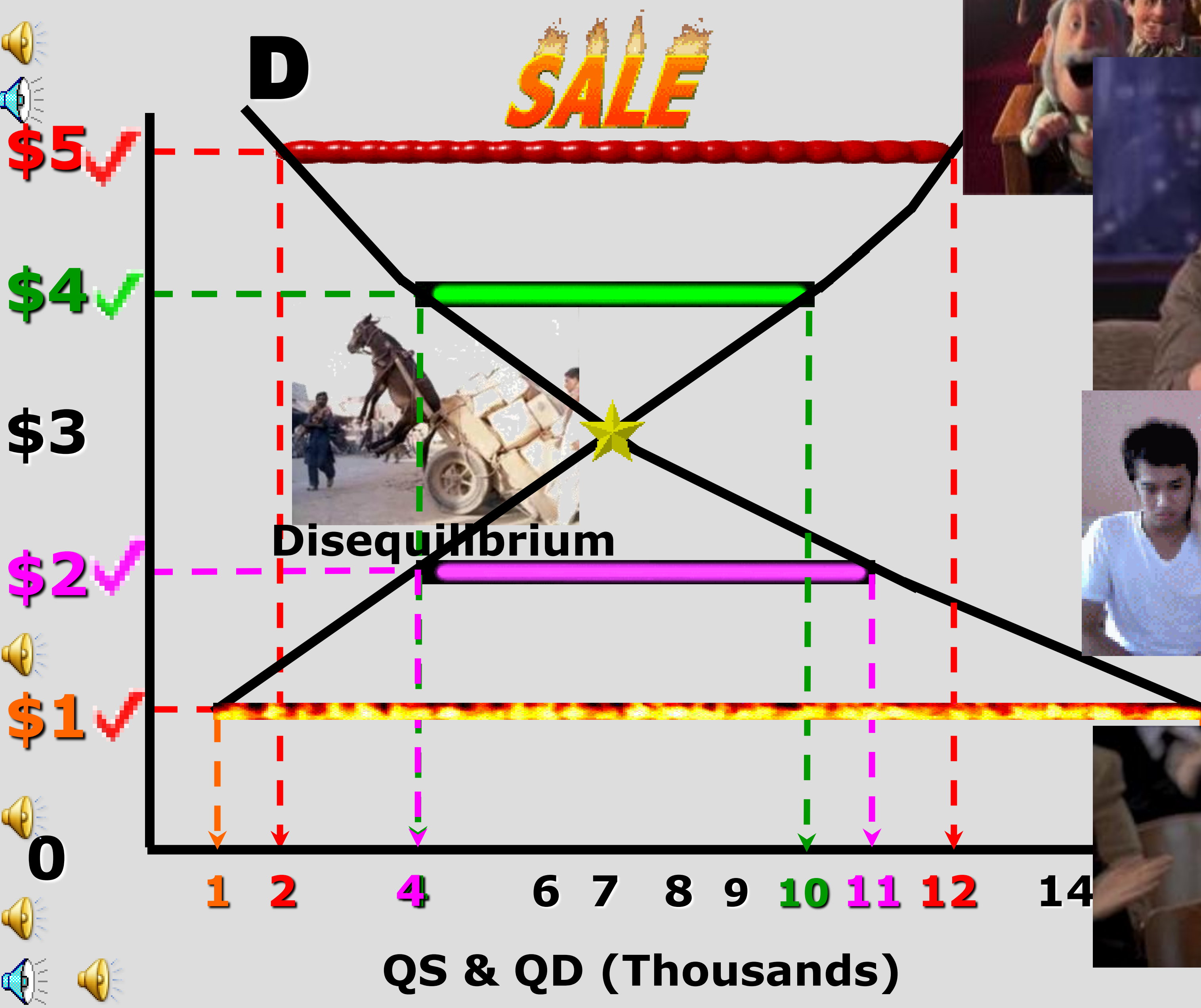


Existing suppliers of DVD rentals are willing to supply more as the price increases and others[Albertson’s] are attracted to the market.

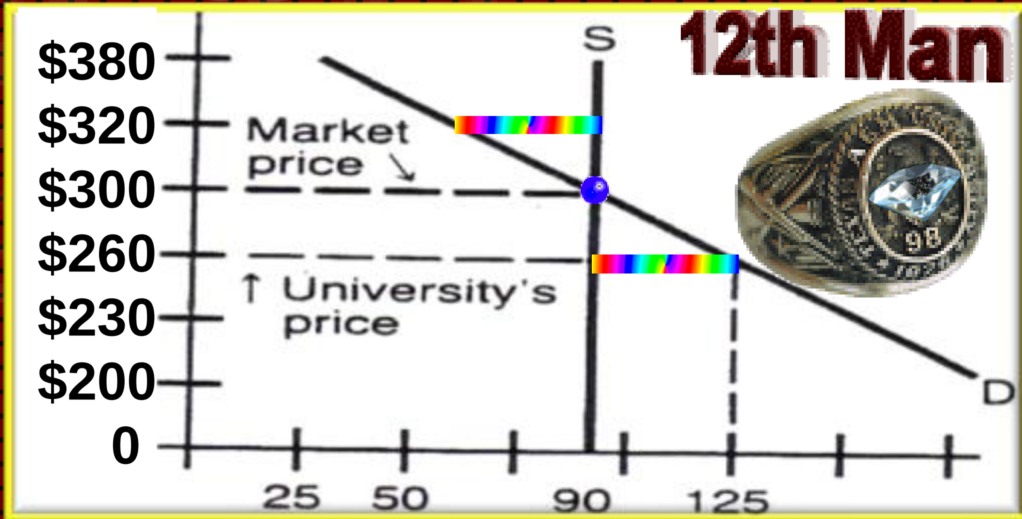
Law of Supply and Demand



Is there a shortage or surplus



Aggieland Football Season Tickets



$90

Why do the Ags have a scoreboard on the outside of the stadium?

If equilibrium price was $300 but the Aggies were charging only $260, would there be a shortage or surplus?

The Aggies have a scoreboard outside so that the 5 Reveilles who are buried outside the stadium can see the scoreboard.

The **5 mascots** are ranked as **5-Star generals** and are **buried facing the scoreboard**.

The **Plaque** says this:
"Reveille 1st, and the other Reveilles that follow her, will always have a special place in an Aggie's heart and symbolize the **undying spirit** of **Texas A&M**."

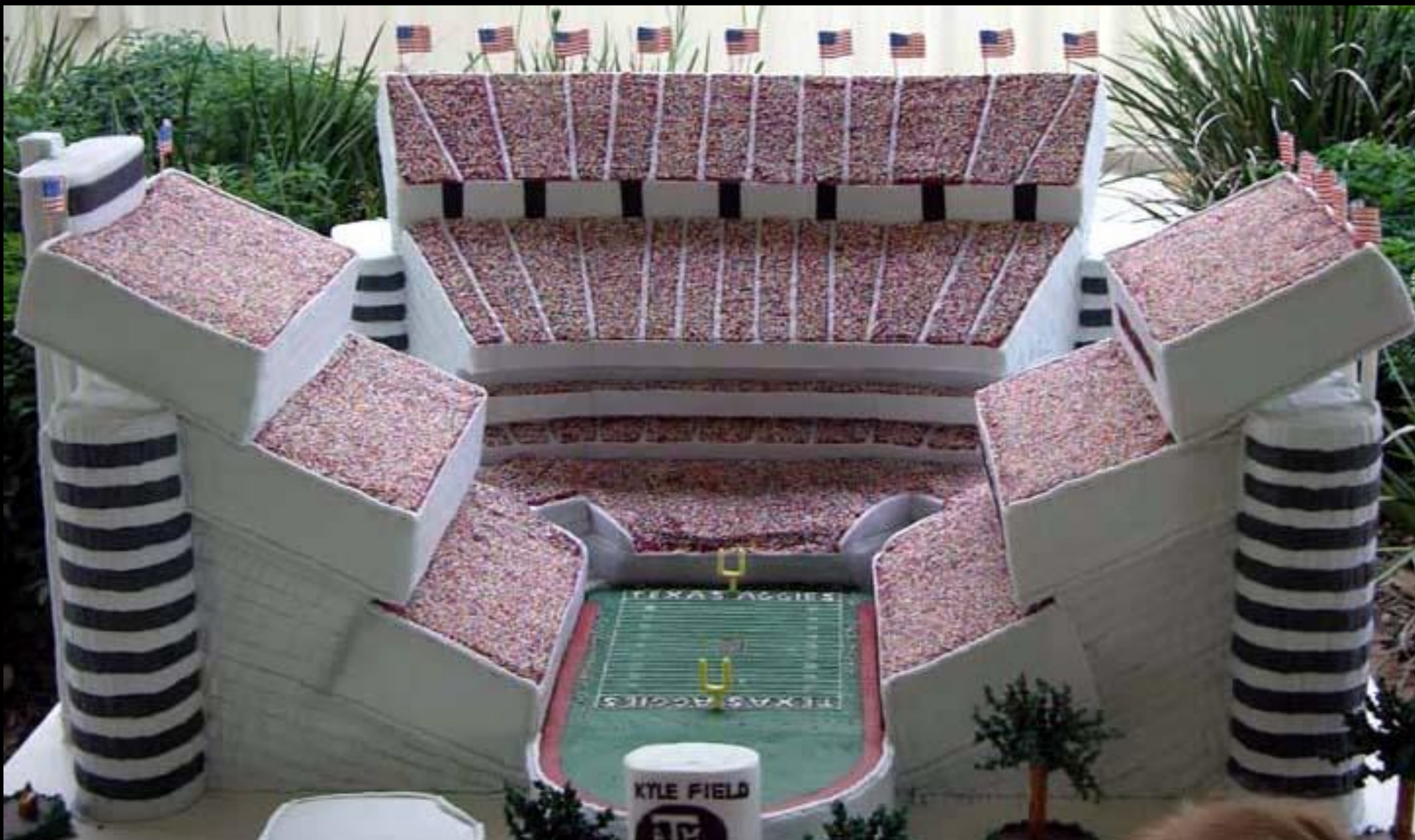
I will be the Aggie mascot one day.

The Texas Aggie War Hymn

The Aggie War Hymn

Hullabaloo, Caneck, Caneck
Hullabaloo, Caneck, Caneck
Good bye to texas university
So long to the orange and the white
Good luck to dear old Texas Aggies
They are the boys who show the real old fight
'the eyes of Texas are upon you'
That is the song they sing so well
Sounds Like hell
So good bye to texas university
We're gonna beat you all to
Chigaroogarem
Chigaroogarem
Rough, Tough, Real stuff, Texas A&M

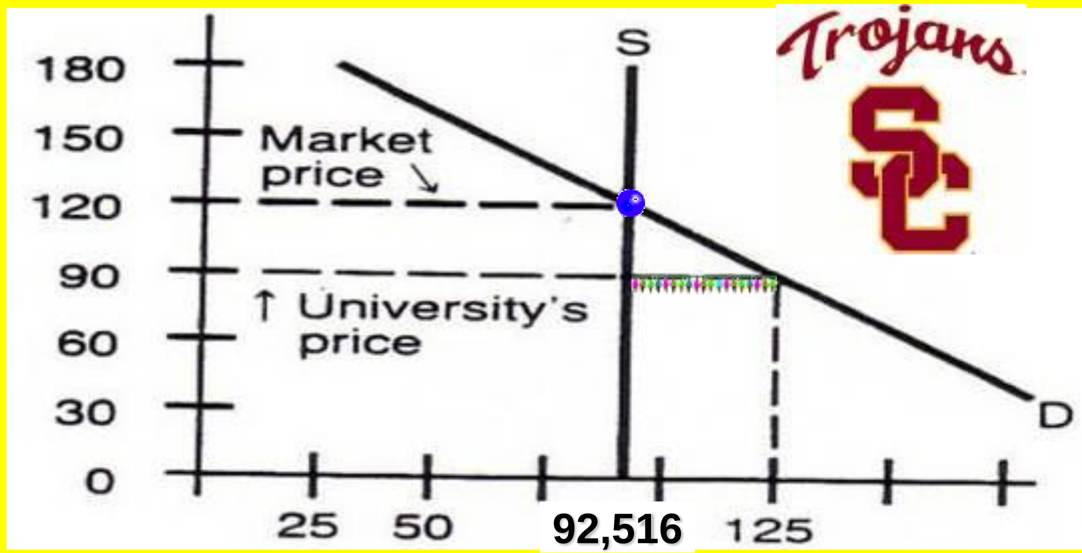
What Does An Aggie Wedding Cake Look Like?



For California Teachers [and students]

Southern California at LA Memorial Coliseum

Southern Cal Football Season Tickets




TrojanFB.com

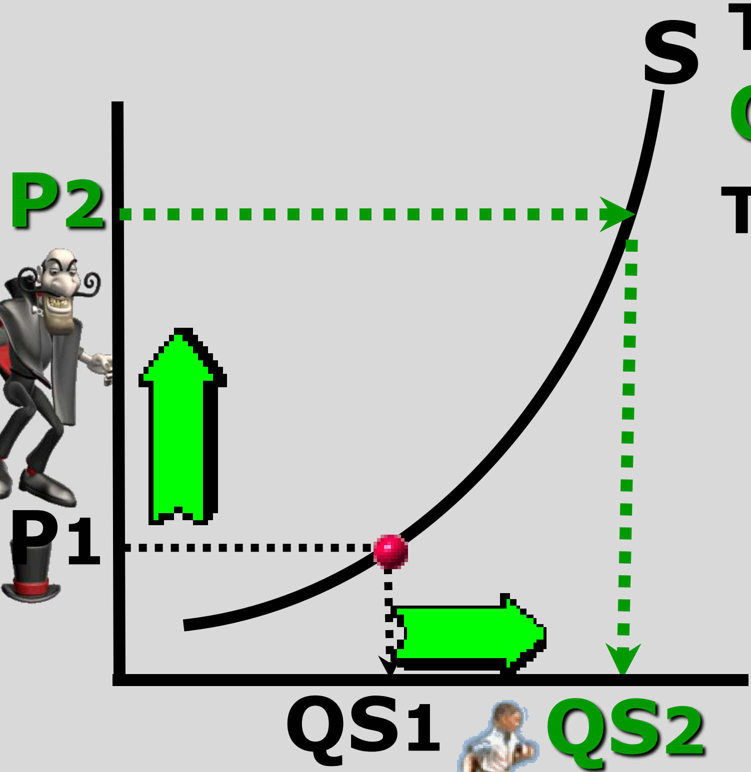
Supply (& Demand)

"Bread & Butter" of Economics

["perfectly competitive markets"]

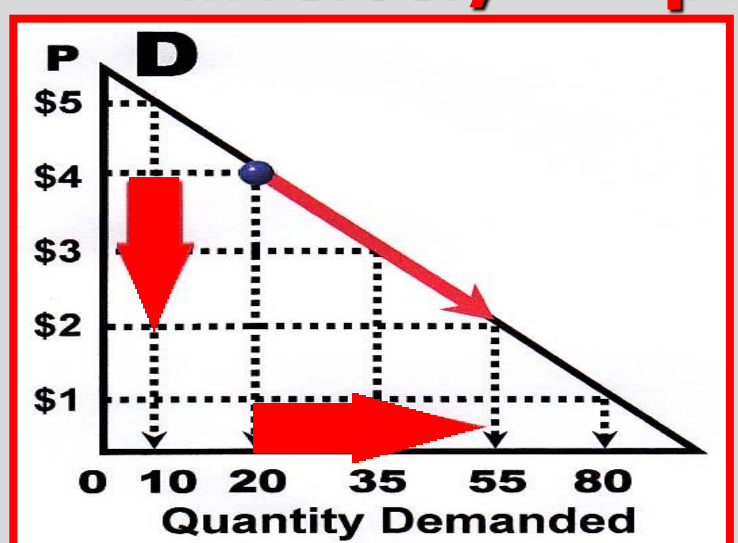
Direct – **price** and **QS move** in the **same direction**.

(increase together or decrease together)



The **Law of Supply** says **QS** varies **directly** with **price**.

The **Law Of Demand** says **QD** varies **inversely** with **price**.



All of you learned supply & demand as babies.

I want a clean diaper

Your mom wanted peace and quiet.

The law of supply and demand is learned in infancy. Infants demand clean diapers and are willing to supply peace and quiet in exchange. Mothers demand peace and quiet and are willing to supply clean diapers in exchange. The terms of trade are arranged.

"One scream equals one diaper.
The price of one diaper is one scream."

Supply – producers **"willingness to sell."** Or, the **amount of products suppliers are "willing & able to sell" at each price during a specific time period."**

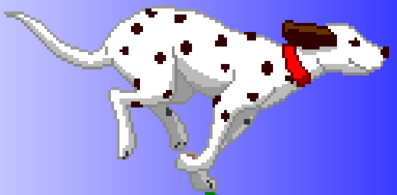
Supply (and Demand)

"Bread & Butter" of Economics

["perfectly competitive markets"]

Bread

Butter



Law of Supply – **QS** varies **directly** with **price**.

Suppliers offer more for sale at higher prices than at lower prices. The **consumers**, being on the **paying end**, tend to buy a small amount of the product, but will **buy more if the price is lowered**. The **supplier**, on the **receiving end**, considers **price as an incentive** to sell a product. The higher the price, the more incentive he has.

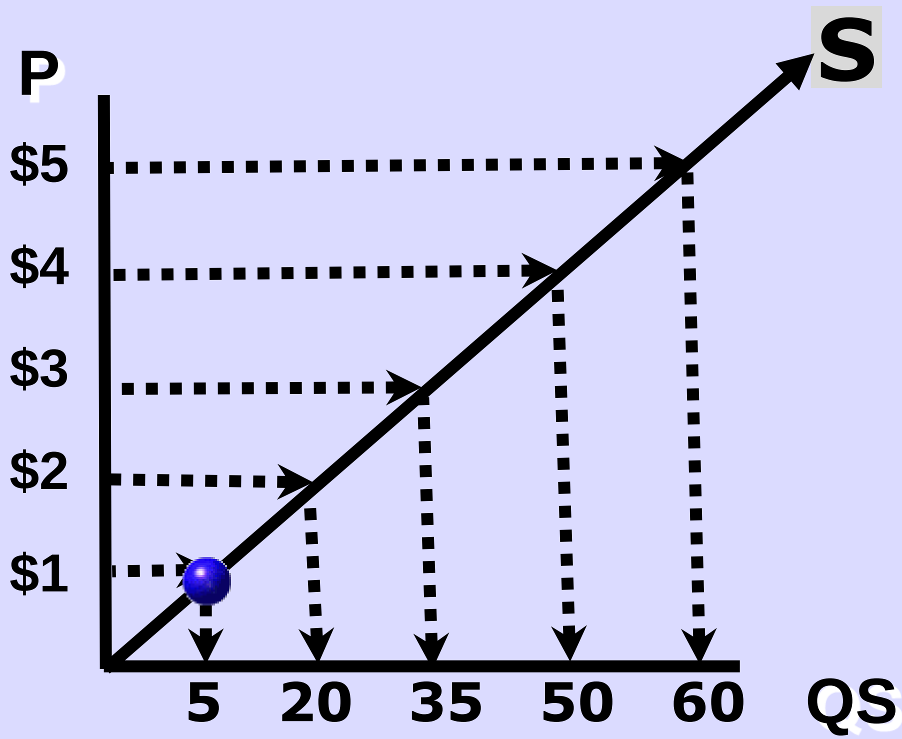
SUPPLY SCHEDULE and SUPPLY CURVE
[“Picture of the Law of Supply”]

SUPPLY SCHEDULE

CORN

P	QS
$1	5
2	20
3	35
4	50
5	60

SUPPLY CURVE

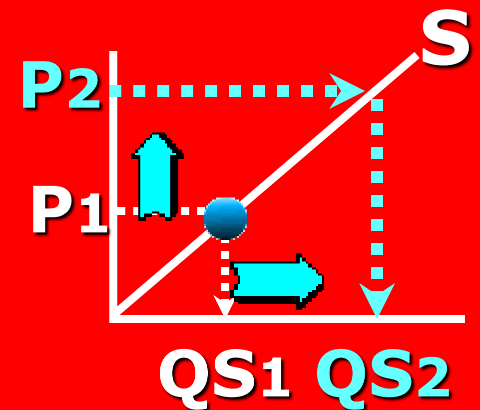


"Let's make more."

Law of Supply

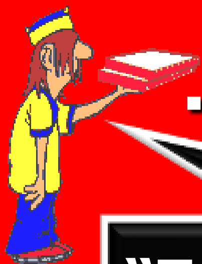
- As price increases

…QS also increases

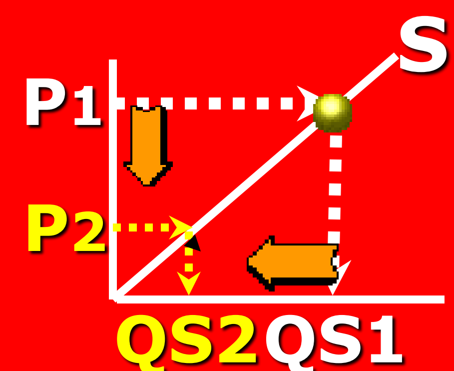


-As price decreases

… QS also decreases

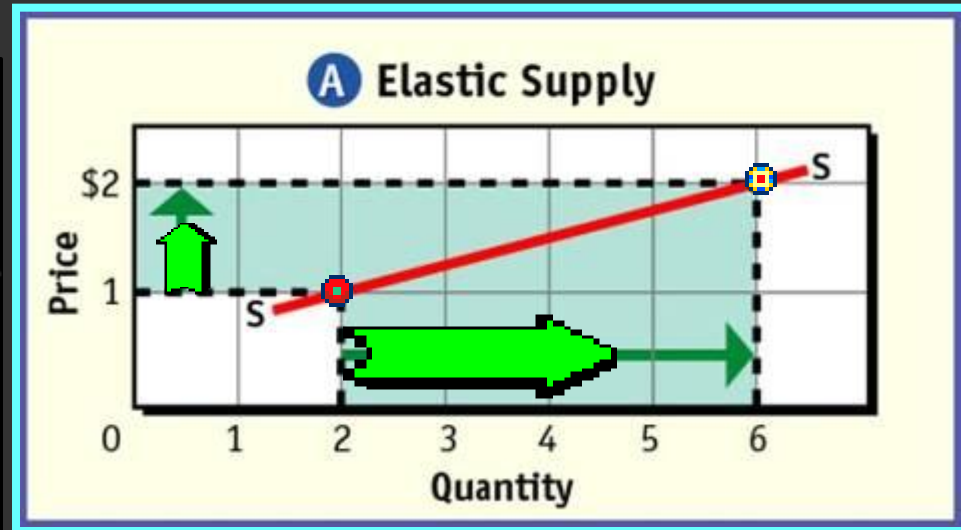


"Take it. We are losing money."



Direct relationship between P & QS

45. Elastic Supply – a **small increase/decrease in price causes significant change in QS**. Elastic supply is **very responsive** to price changes.



Elastic (Flexible) Supply

1. Can be **made quickly**
2. **Little expense** (few capital resources required)
3. **(47) Unskilled workers**
4. **Long time**
5. **Don't need scarce natural resources**

Examples: (50) T-shirts, hats, shot glasses, and posters

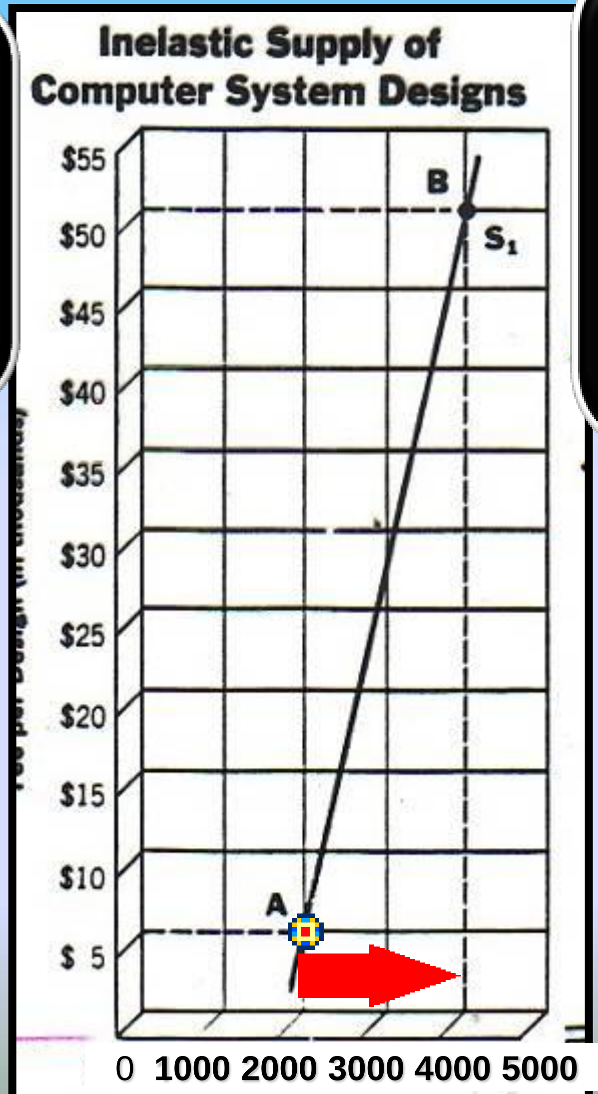
Inelastic (Inflexible) Supply

1. **Cannot** be **made quickly**
2. **Great Expense** (large capital resources required)
3. **(48) Skilled workers**
4. **Short time**
5. **Scarcity** of **natural resources**

Examples: Gold, diamonds, and (49) computers

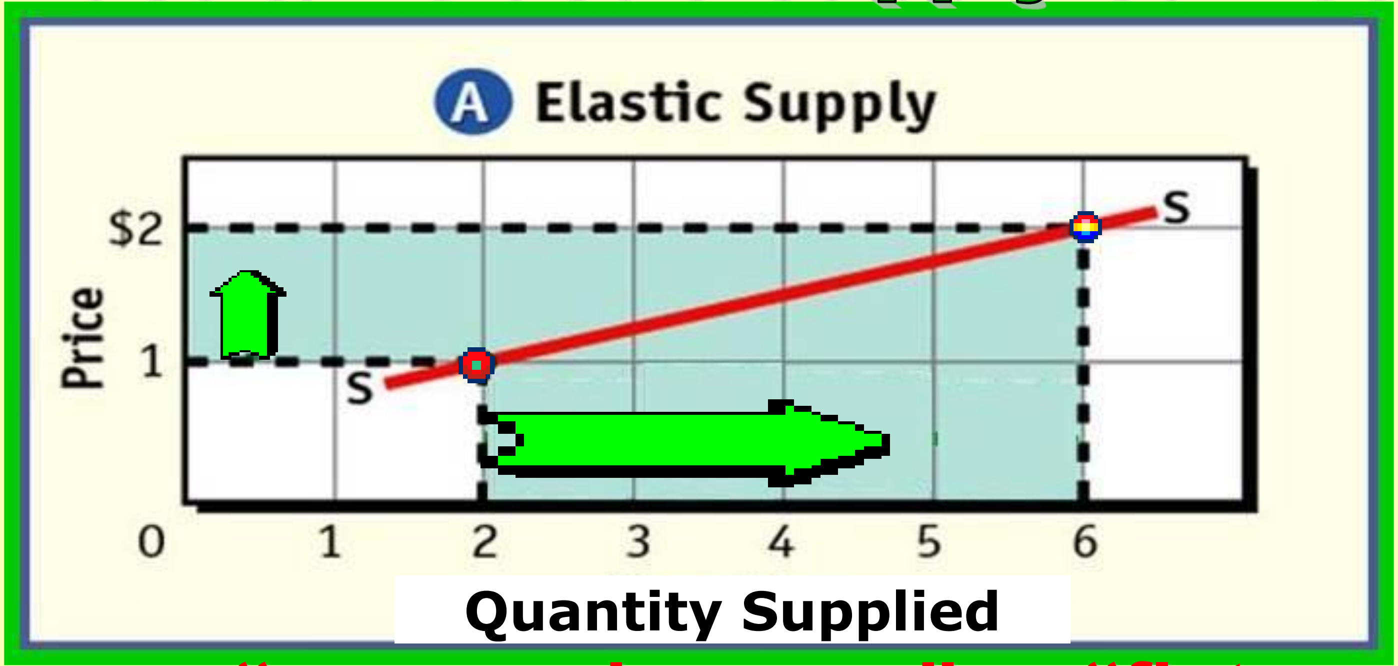
46. Inelastic Supply - regardless of price, producers are **unwilling/unable to increase/decrease QS**. (**QS** is **inflexible** and **unresponsive to price changes**)

Elastic supply is very responsive to price & inelastic supply is unresponsive to price.

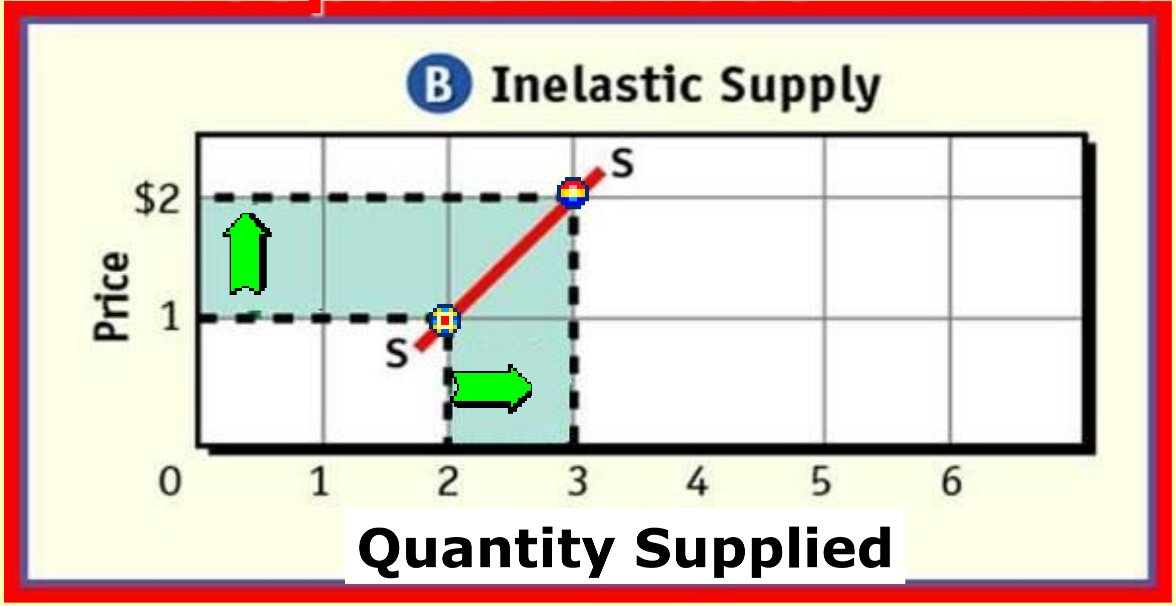


51. Elastic supply results in a more horizontal line & 52. inelastic supply results in a more vertical line.

Elastic/Inelastic Supply Curves



Think of **"responsiveness"** as **"flatness"**.



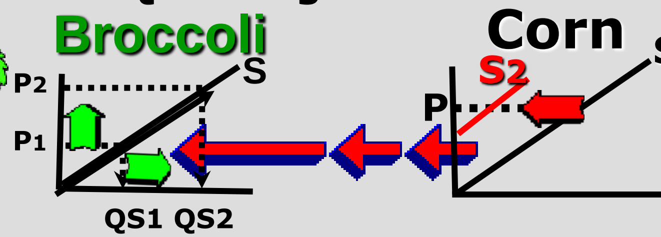
Change in "Supply" [Curve]

I only have 200 acres

1. "Non-price change" [RATNEST]
2. Whole supply curve "shifts"

[There was a QS change but it was not caused by a change in price]

"RATNEST"



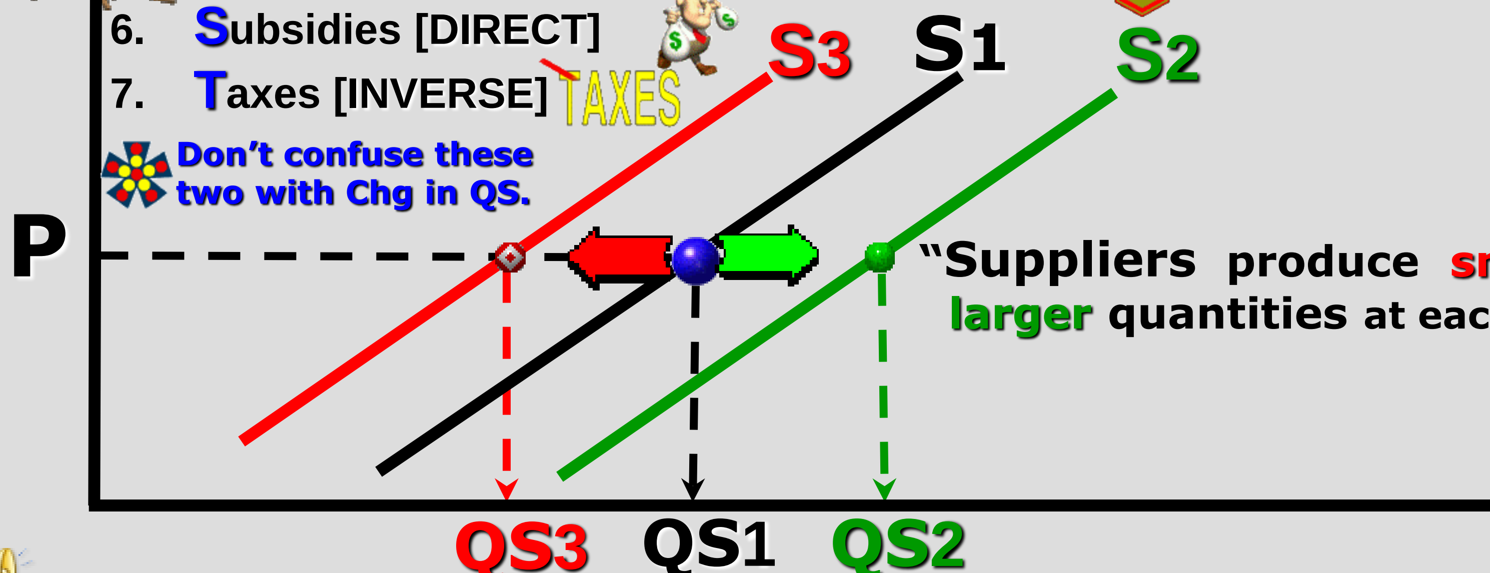
Alternative Output Price Change
[INVERSE]

"Substitutes in production"
"Things that can be supplied with the same resources."

"Supply Shifters" [RATNEST]

1. Resource Cost [wages [capital cost] raw materials] [INVERSE]
2. Alternative Output Prices [INVERSE]
3. Technology [DIRECT]
4. Number of Suppliers [DIRECT] [new football league- bigger "S" of games]
5. Expectations [about future price] [INVERSE]
6. Subsidies [DIRECT]
7. Taxes [INVERSE] TAXES

Don't confuse these two with Chg in QS.



"Suppliers produce smaller/ larger quantities at each price."

Changes in Supply

- **Increase in Supply**
  - **More quantity supplied at all prices**
  - **Supply Curve shifts right**

- **Decrease in Supply**
  - **Less quantity supplied at all prices**
  - **Supply Curve shifts left**

- **"Price does not change [shift] Supply".**
- **Price can only change [cause a movement] "QS".**

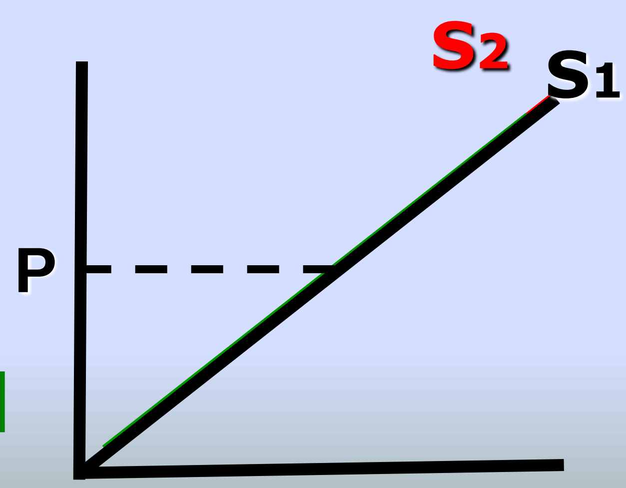
Let's Take A Look At The Seven Supply Shifters ["RATNEST"]

1.Resource Cost [wages & raw materials] [Inverse]

Wages

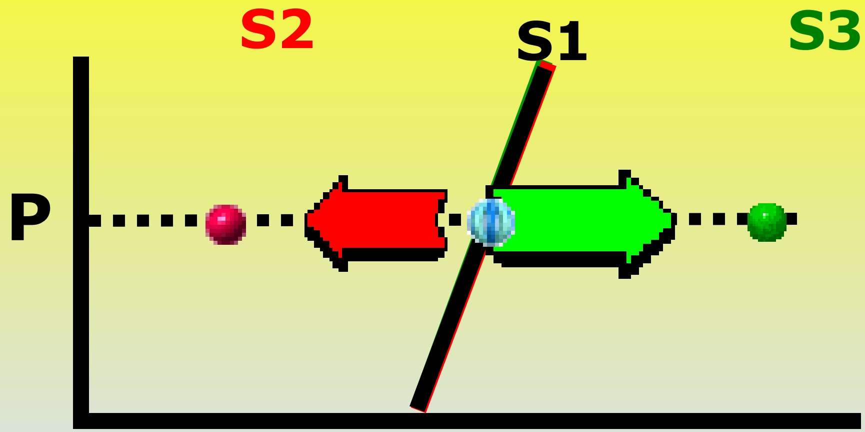
Raw Materials

If resource cost decreases supply Increases [making more $]



If resource cost increases supply Decreases [making less $]

Resource Cost Example



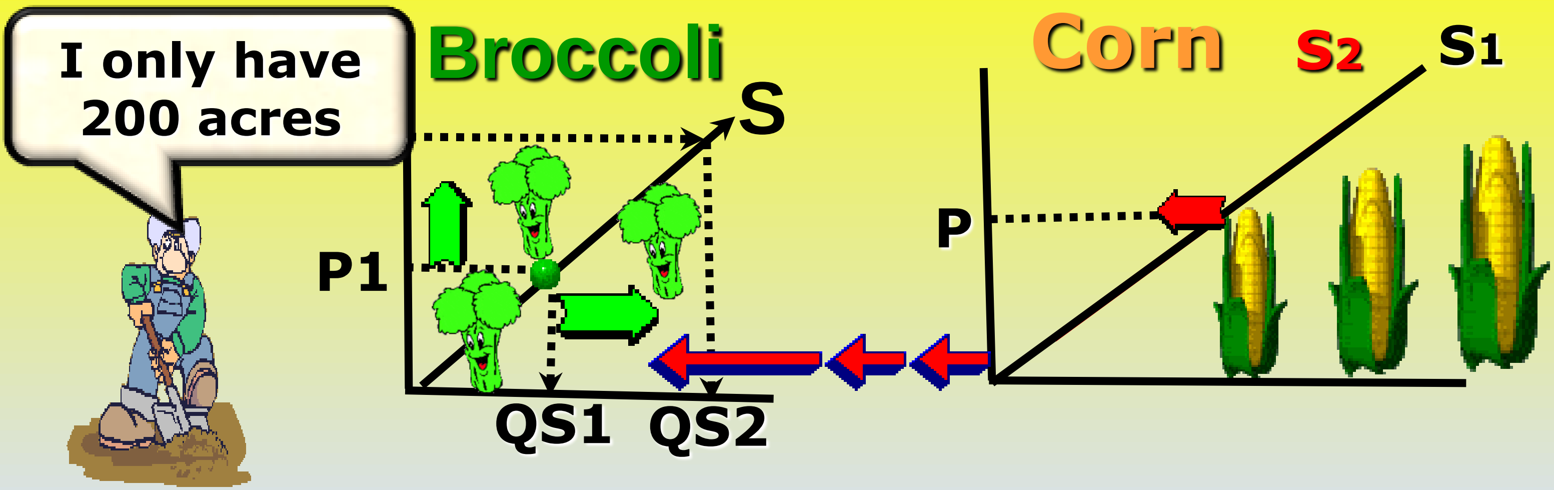
Resource Cost [wages & raw materials] [**inverse**]

58. Increase in wages (increases/decreases) supply.

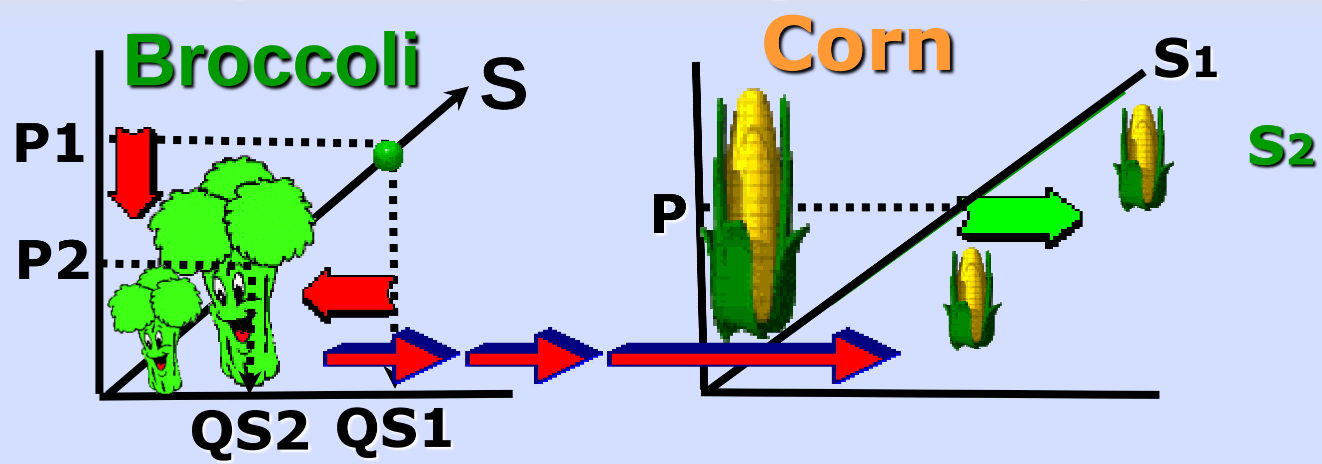
Ex: A decrease in the price of computer chips (increases/decreases) the supply of computers.

2. Alternative Output Price Change [Inverse]

These are **"things that can be supplied with the same resources".**



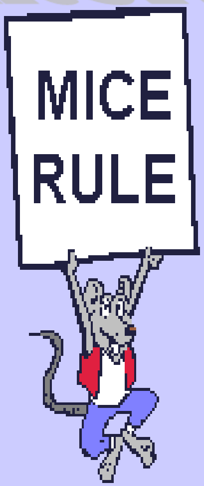
Producers want to produce more of the good where price is increasing,

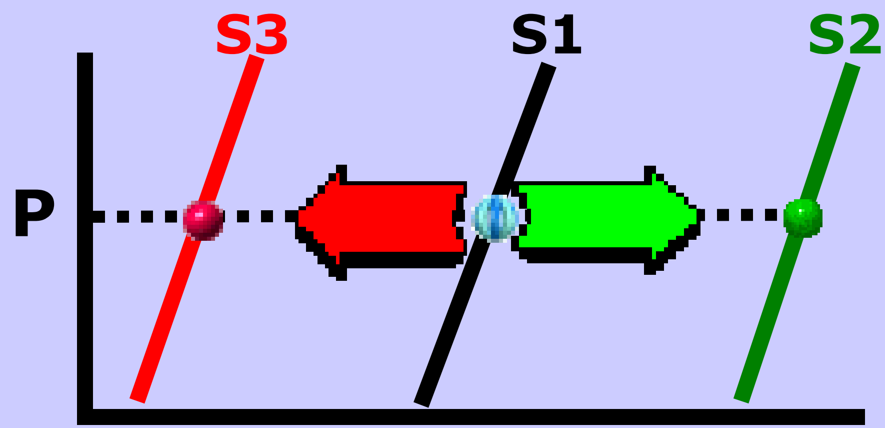


or at least, where the price is not going down.

"Substitutes in production" [Remember, productive resources are scarce]

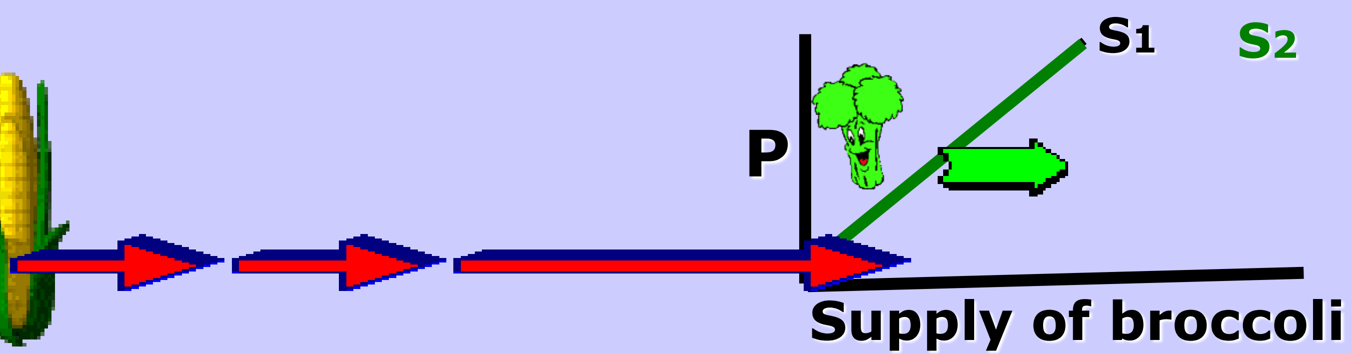
Alternative Output Example





Alternative Output price changes [inverse]

57. If the price of corn decreases, the supply of broccoli (increases/decreases).



3. Technological Improvement

This lowers production costs & **increases "S".**

Ex: Suppose a new milking machine called **"The Invisible Hand"** has a very soothing effect on cows; cows find the new machine so **"udderly"** delightful that they produce **30% more milk**. This technological advance will cause a **shift to the right**.

Technological Breakthrough – Cow Waterbeds

"500 gallons of blood have to circulate thru a cow's udder to produce nutrients for one gallon of milk."

How many?

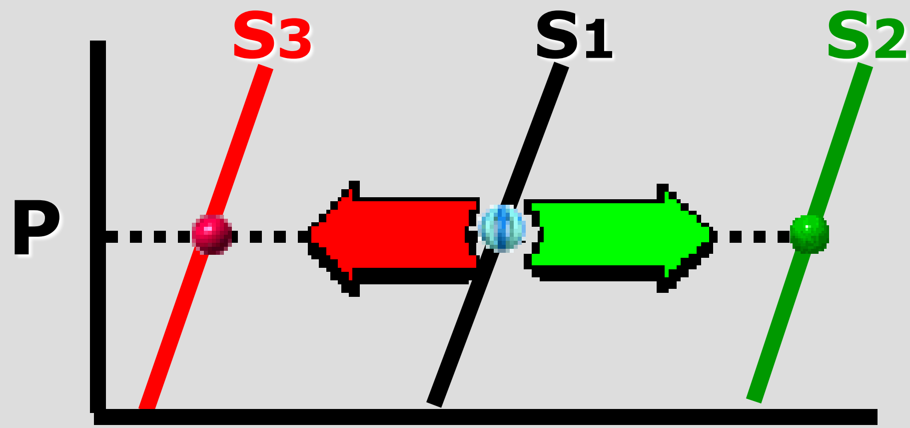
The cow floats on its own pocket of water, as the water bed fits each body. They are "cool in summer and warm in the winter". They are filled with 18 gallons of water and covered with thick rubber mats – undulated when the 1,400 pound cows shifted their weight.

By conforming to the shape of the cows, the beds give the cows a more comfortable rest. They reduce wear and tear on the cows' joints & prevent swelling and burning of hocks (ankles). The cows pressure points, the knees and hocks (ankles) float on the surface preventing hair loss, skin abrasions, and swollen hocks. Because the cow's utter floats on top of the waterbed and is not crushed against a solid bed surface, the cow's udder received better blood flow.

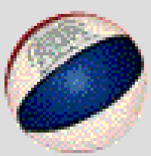
The cows appear to be lazy because they lie down for 6-8 hours a day to digest food. However, there is a lot of work going on inside their bodies. The cow's udder extracts nutrients from blood to produce milk. 500 gallons of blood have to circulate thru a cow's udder to produce nutrients for one gallon of milk." The cows wait for a shot at the water beds. The first ones who come back from the milking parlor fill those water bed stalls first. The other late-arriving cows say,

"Mooooooovvvvveeeeee over, give me that water bed."

4. Number of Producers [Direct]



56. If more firms enter an industry, the supply curve will shift to the (left/right).



- When the American Basketball League began play in 1968, there was a (bigger/smaller) supply of basketball games each week.

60. A new professional football league will (increase/decrease) the supply of football games.

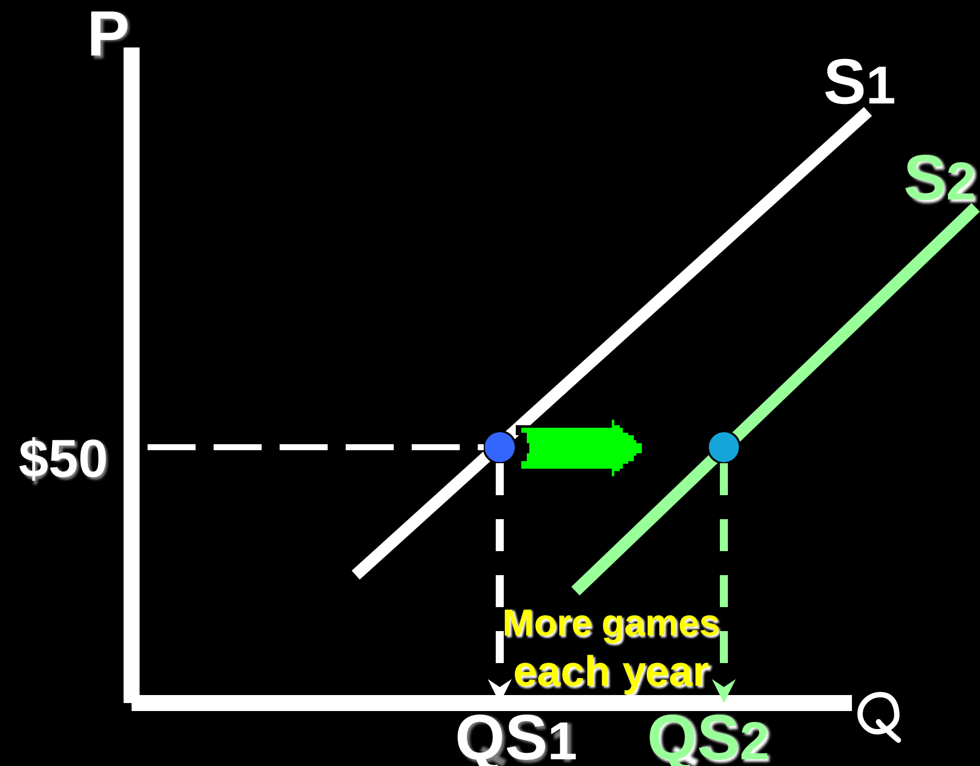
4. Number of Suppliers [Direct]

XFL in 2001

8 new teams

Because of the XFL's cheerleaders many called this league, not the XFL, but the

XXXFL

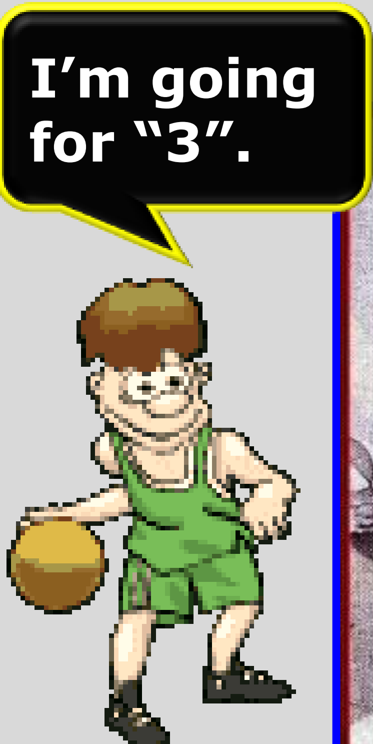


XFL [Extreme Football League]

Supply of FB games increased when the XFL was formed.

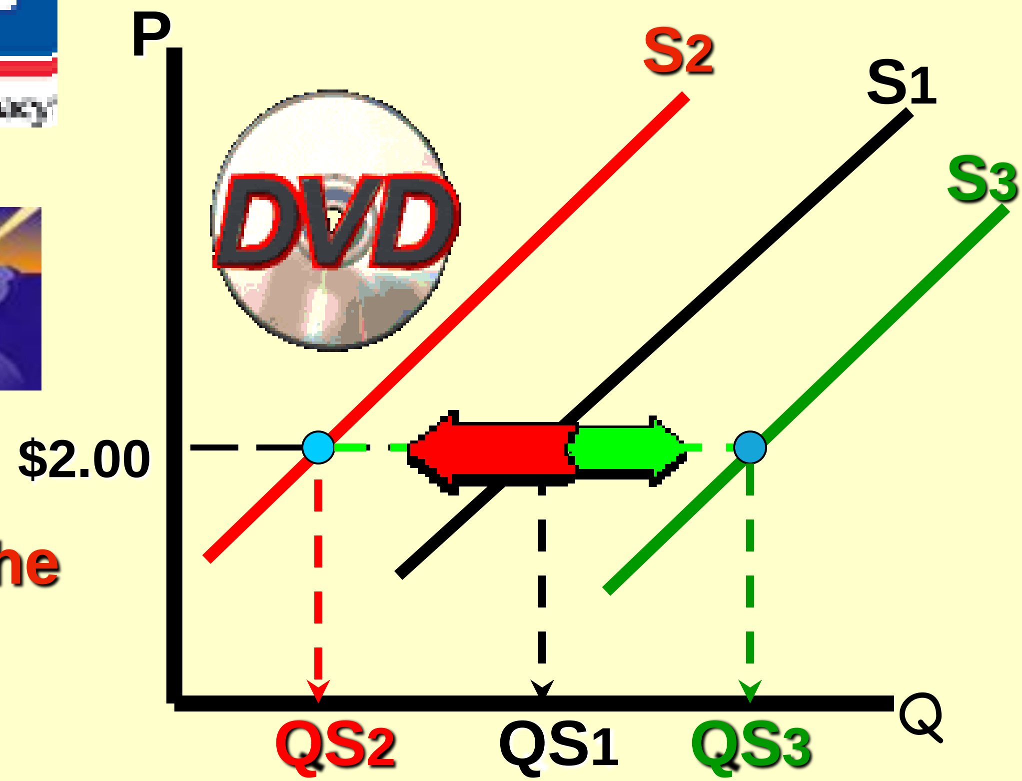
Bigger Supply of Basketball Games in 1968 with the ABA

Dallas Chaparrals



"Bigger supply of basketball games every week"

What Happens To Supply If There Is A Decrease in # of Suppliers?



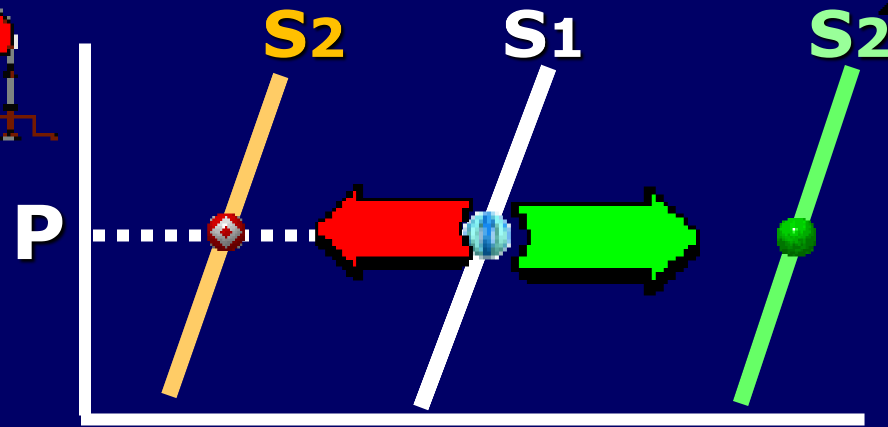
Supply decreased when the number of suppliers was reduced.

If the number of firms in the market increases, supply will also increase.

5. Producer Expectations about Future Price

[“INVERSE”]

Oil Prices
expected
to decrease



Oil Prices
expected
to increase

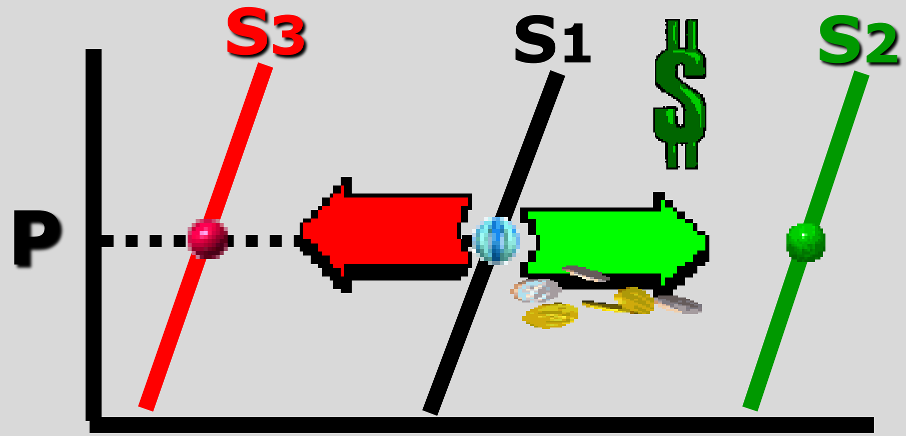
59. If oil producers **expect future oil prices to decline**, they will (<u>increase</u>/decrease) current production.

If oil producers **expect future oil prices to increase**, they will (increase/<u>decrease</u>) current production.

For example, if the **cattle farmer expects higher prices** for beef in the future, he will send (more/<u>less</u>) cattle to market now. He will keep them on the farm now and would send the cattle to the market in the future when prices are expected to be higher.

6. Subsidies – free money from government

[Direct]

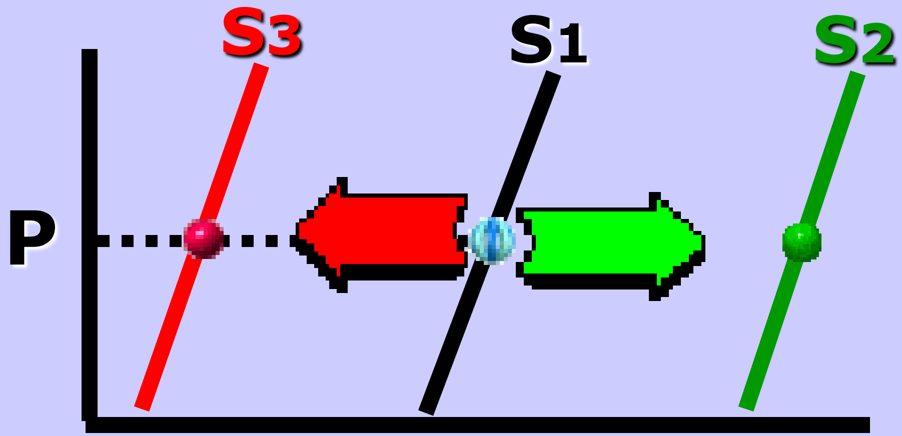


Free money from the government (subsidies) induces suppliers to supply more.

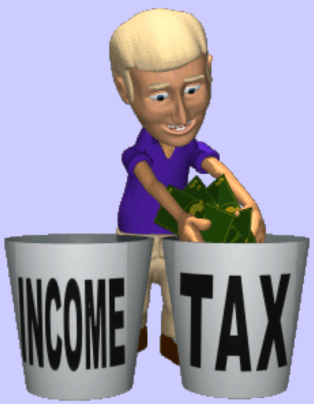
If subsidies are taken away, then suppliers are losing money and will decrease supply.

7. Taxes Take Away Business Profits & Decrease Supply.

[Inverse]



If business have their taxes decreased, it moves the supply curve to the right.



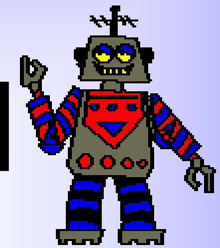
55. If business have their taxes increased, it moves the supply curve to the (left/right).

Supply Shifters [“RATNEST”]

- **R**esource **C**ost [wages & raw materials] [inverse]
- **A**lternative **O**utput price changes [inverse]

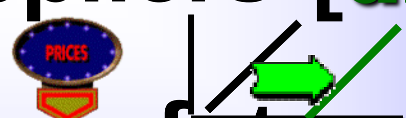
Decr in “S” of broccoli

- **T**echnology [direct]



- **N**umber of **S**uppliers [direct]

Bigger supply of games



- **E**xpectation(Suppliers) about future price [inverse]

- **S**ubsidies [direct]
- **T**axes [inverse]

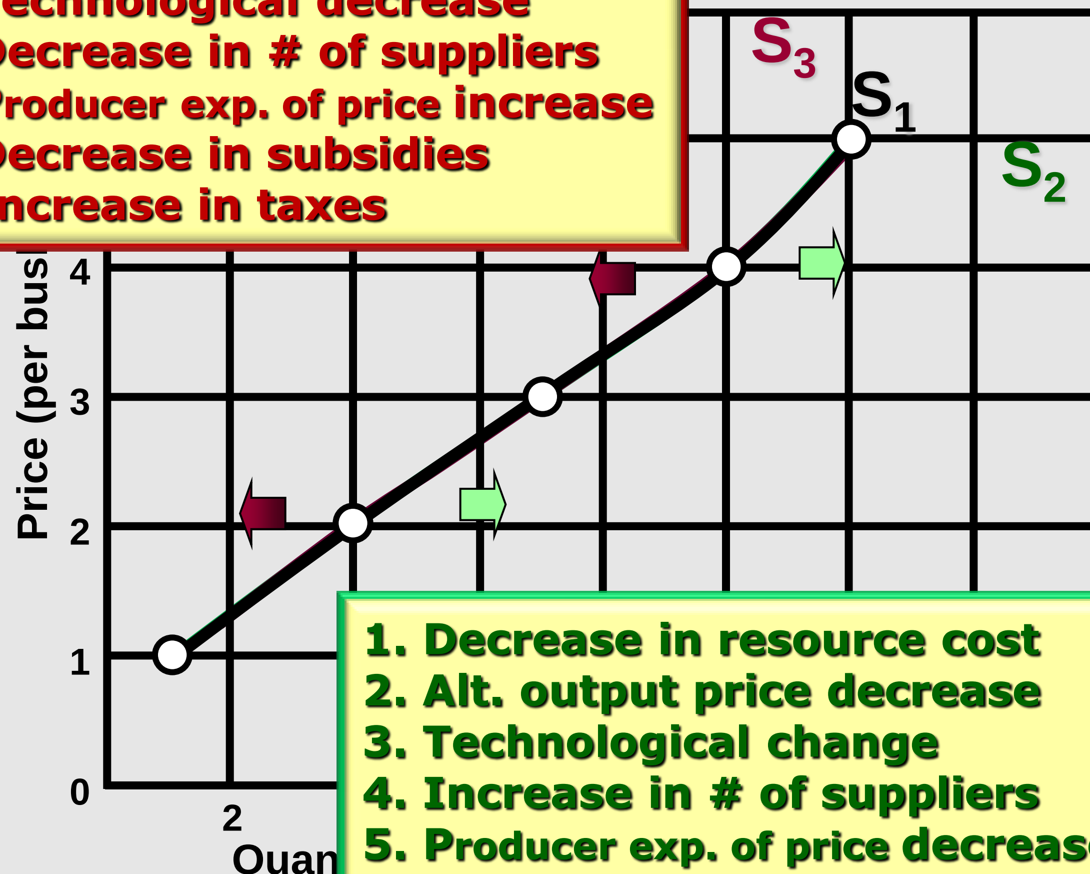
Supply Can Increase or Decrease

Change in Supply ["RATNEST"]

1. Increase in resource cost
2. Alt. output price increase
3. Technological decrease
4. Decrease in # of suppliers
5. Producer exp. of price increase
6. Decrease in subsidies
7. Increase in taxes

Individu
Supply

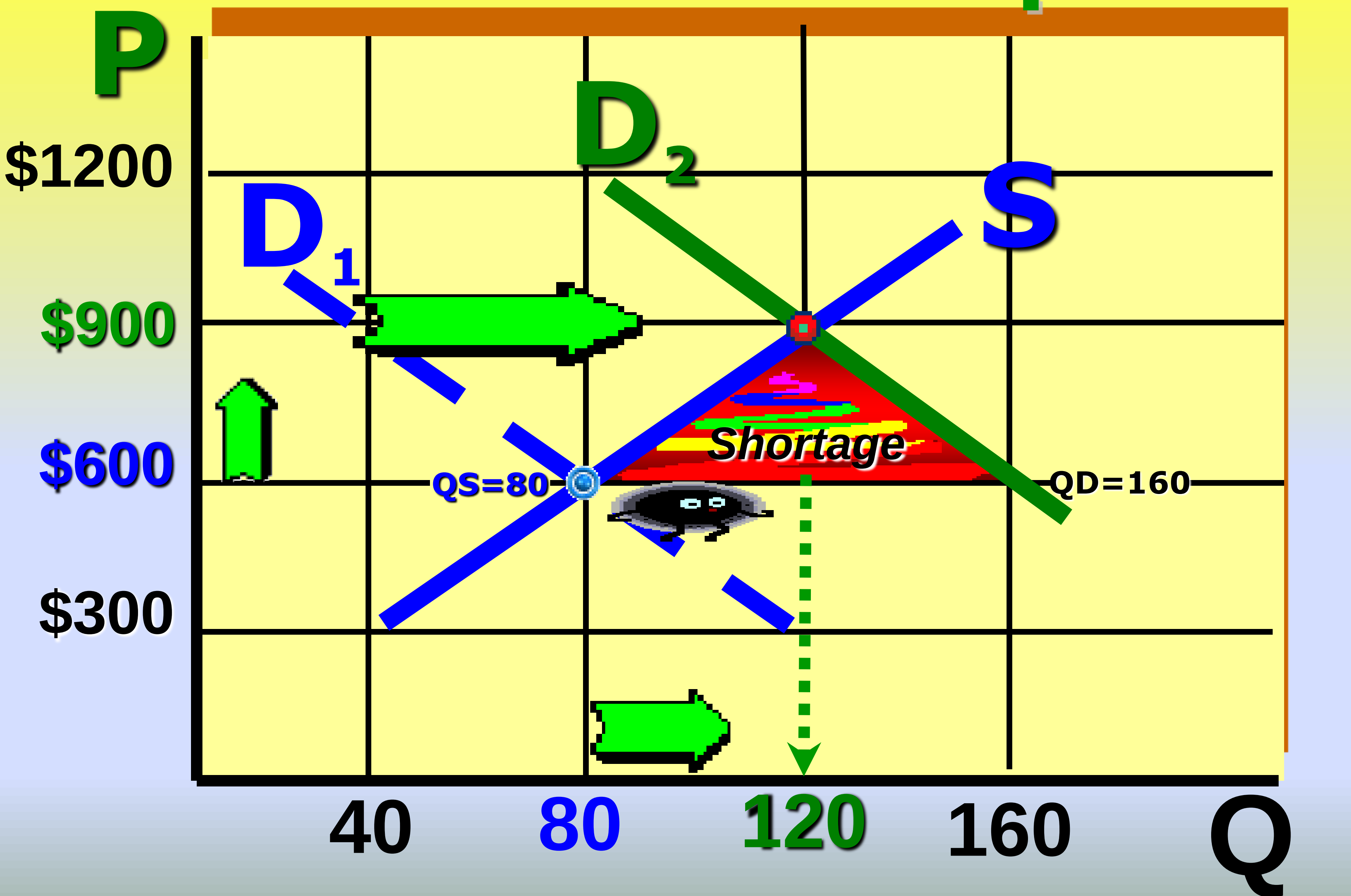
P	Q_s
$5	60
4	50
3	35
2	20
1	5



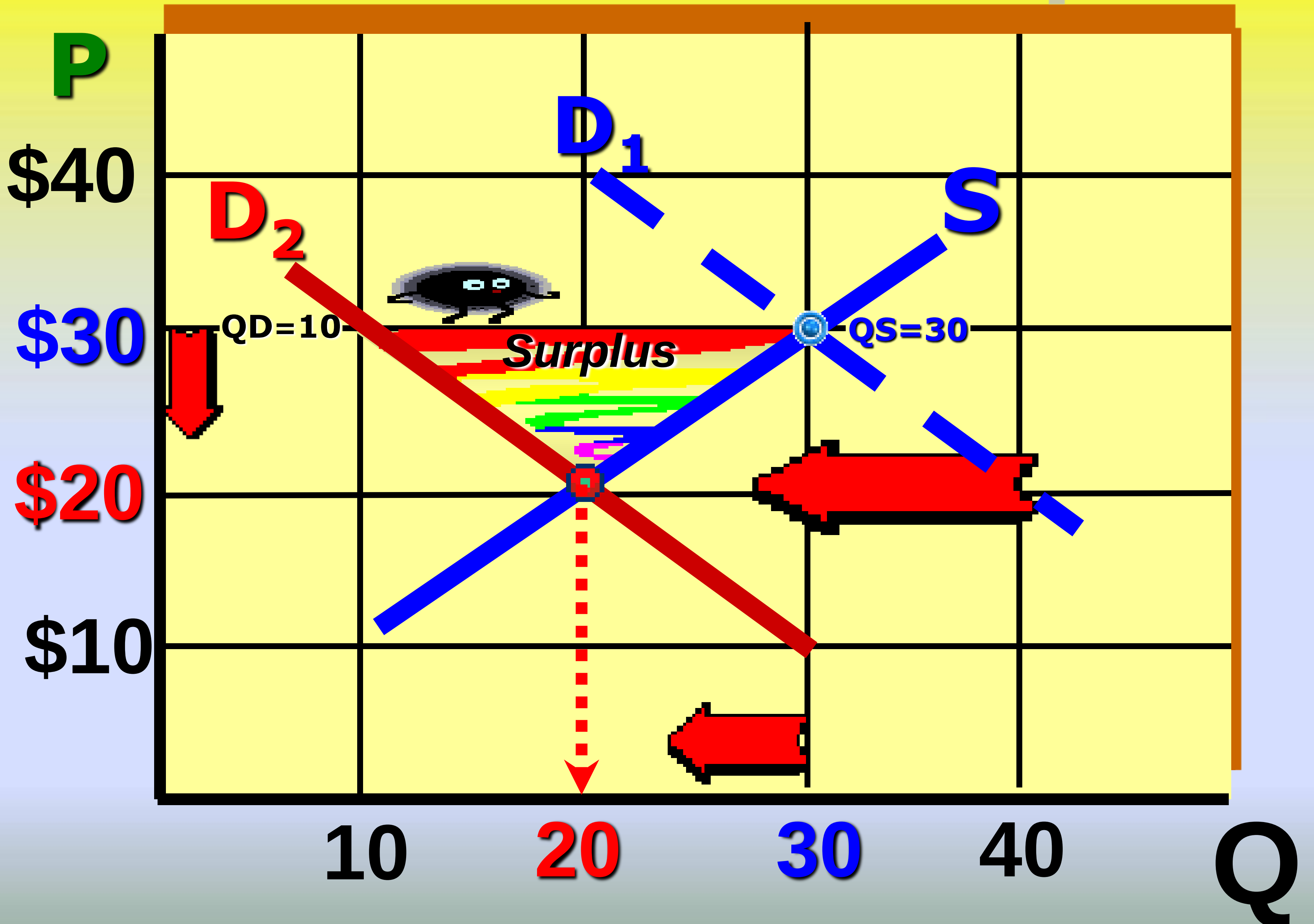
1. Decrease in resource cost
2. Alt. output price decrease
3. Technological change
4. Increase in # of suppliers
5. Producer exp. of price decrease
6. Increase in subsidies
7. Decrease in taxes

"S" is a whole bunch of QS's strung together.

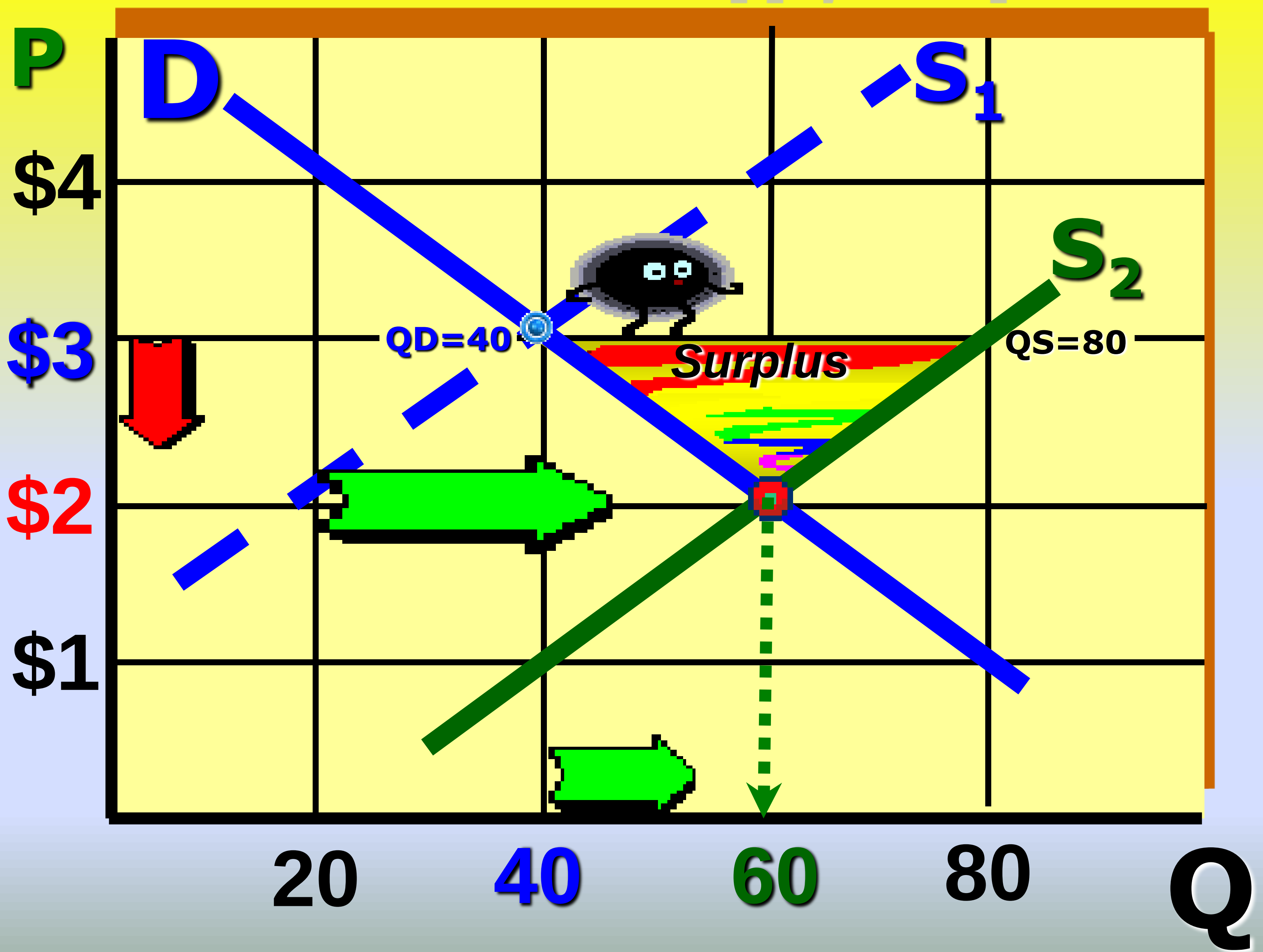
Effects of an Increase in Demand on Equilibrium



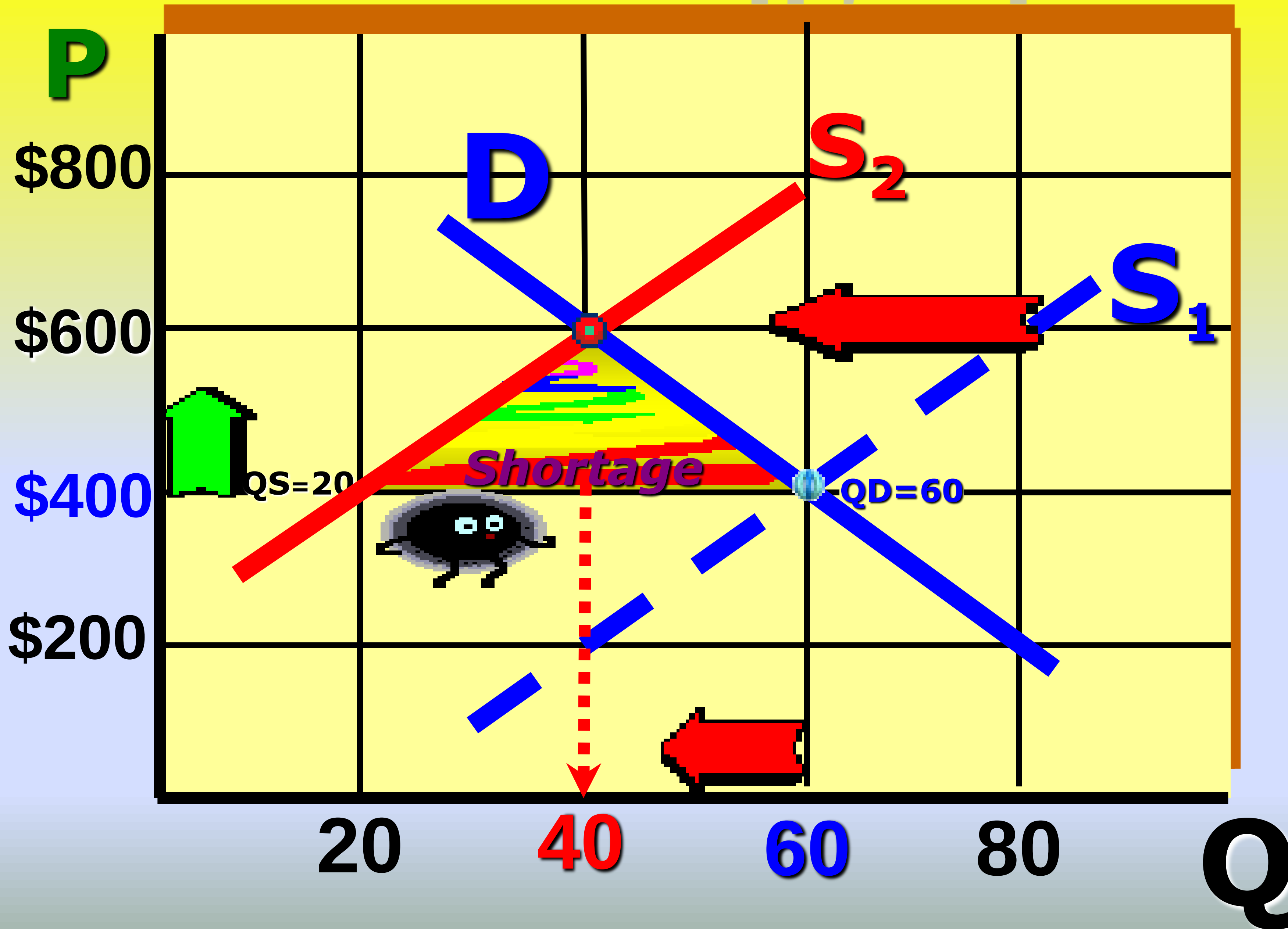
Effects of a Decrease in Demand on Equilibrium



Effects of an Increase in Supply on Equilibrium

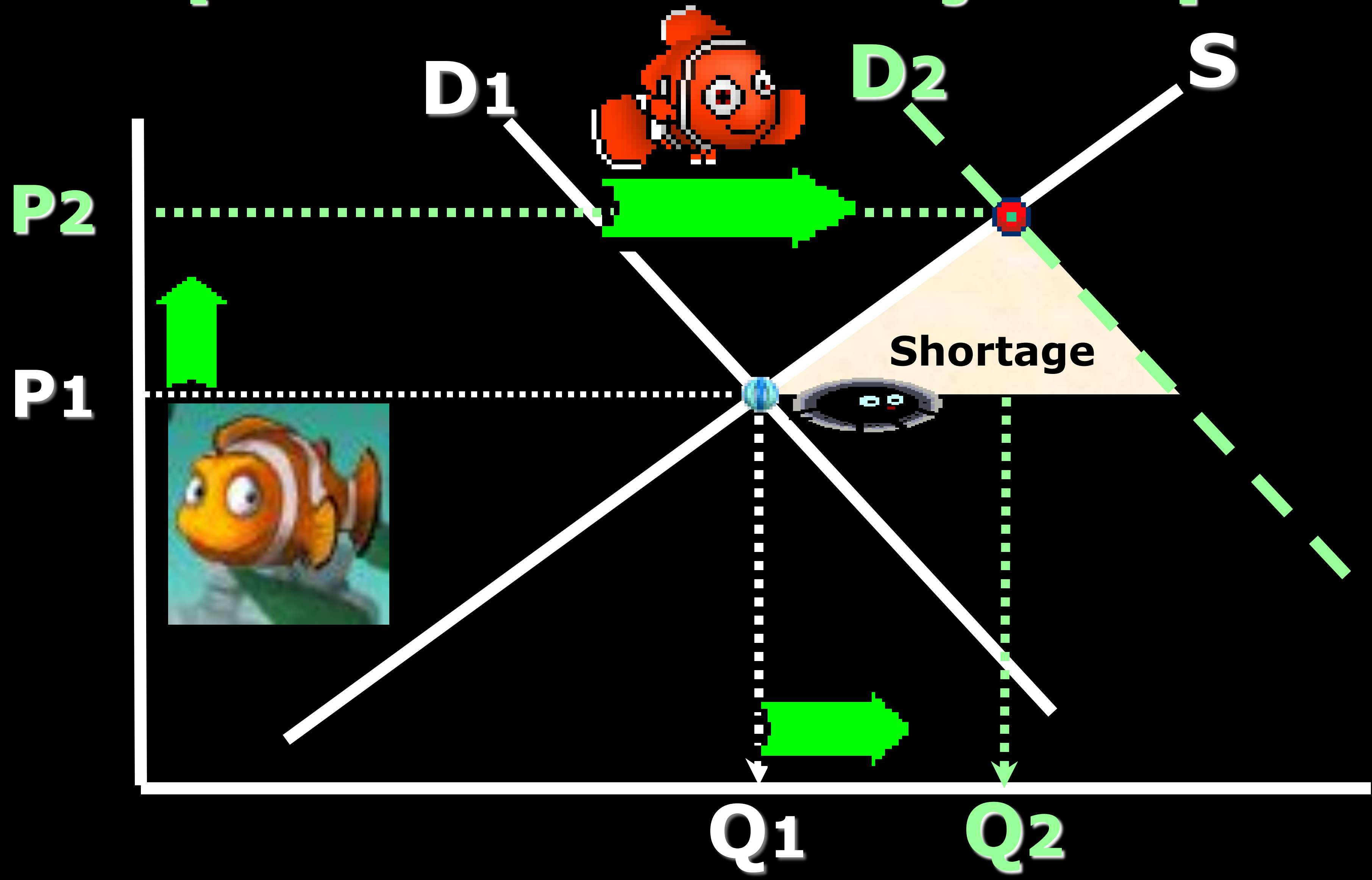


Effects of a Decrease in Supply on Equilibrium

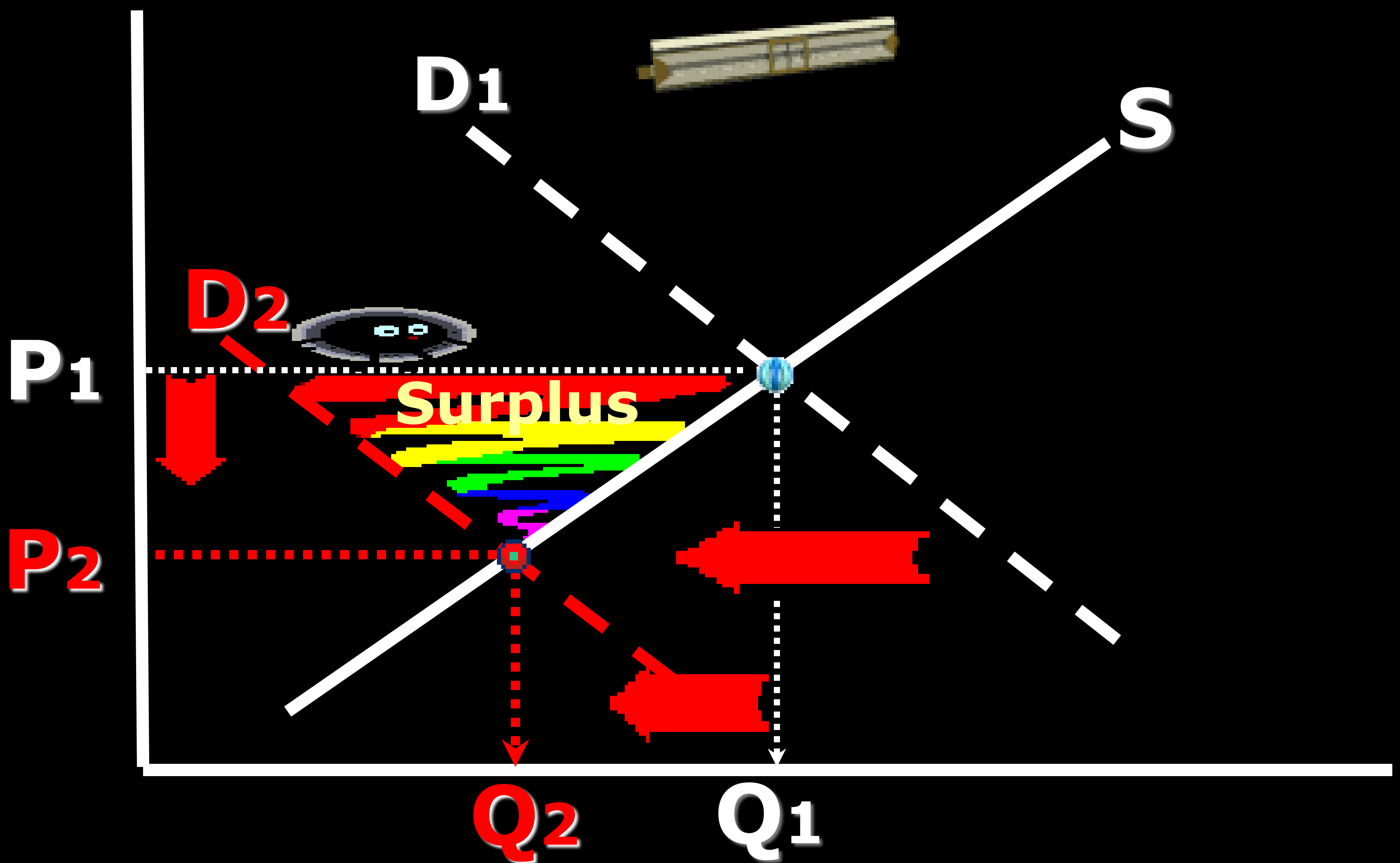


Increase in Demand

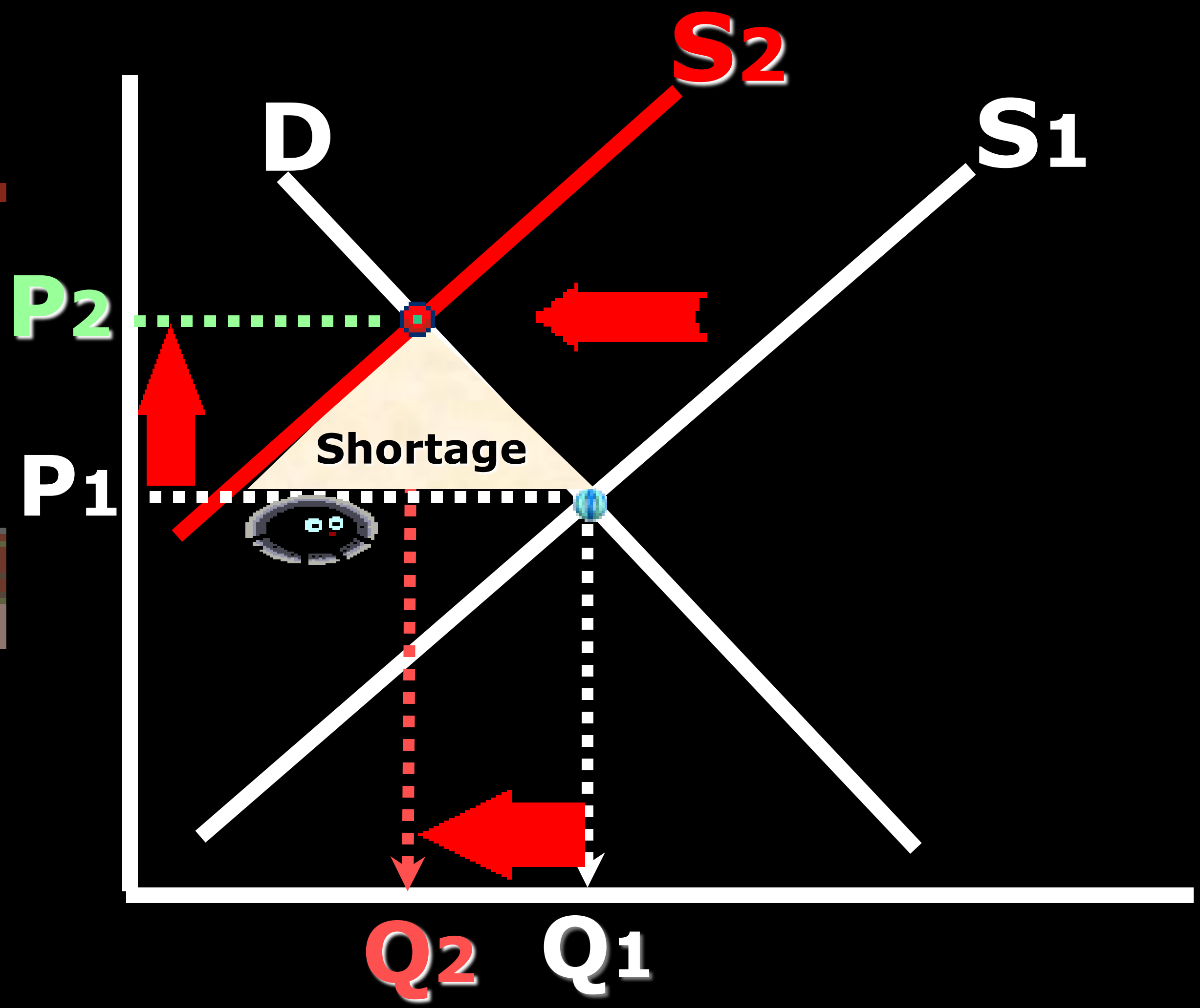
[For clownfish after “Finding Nemo”]



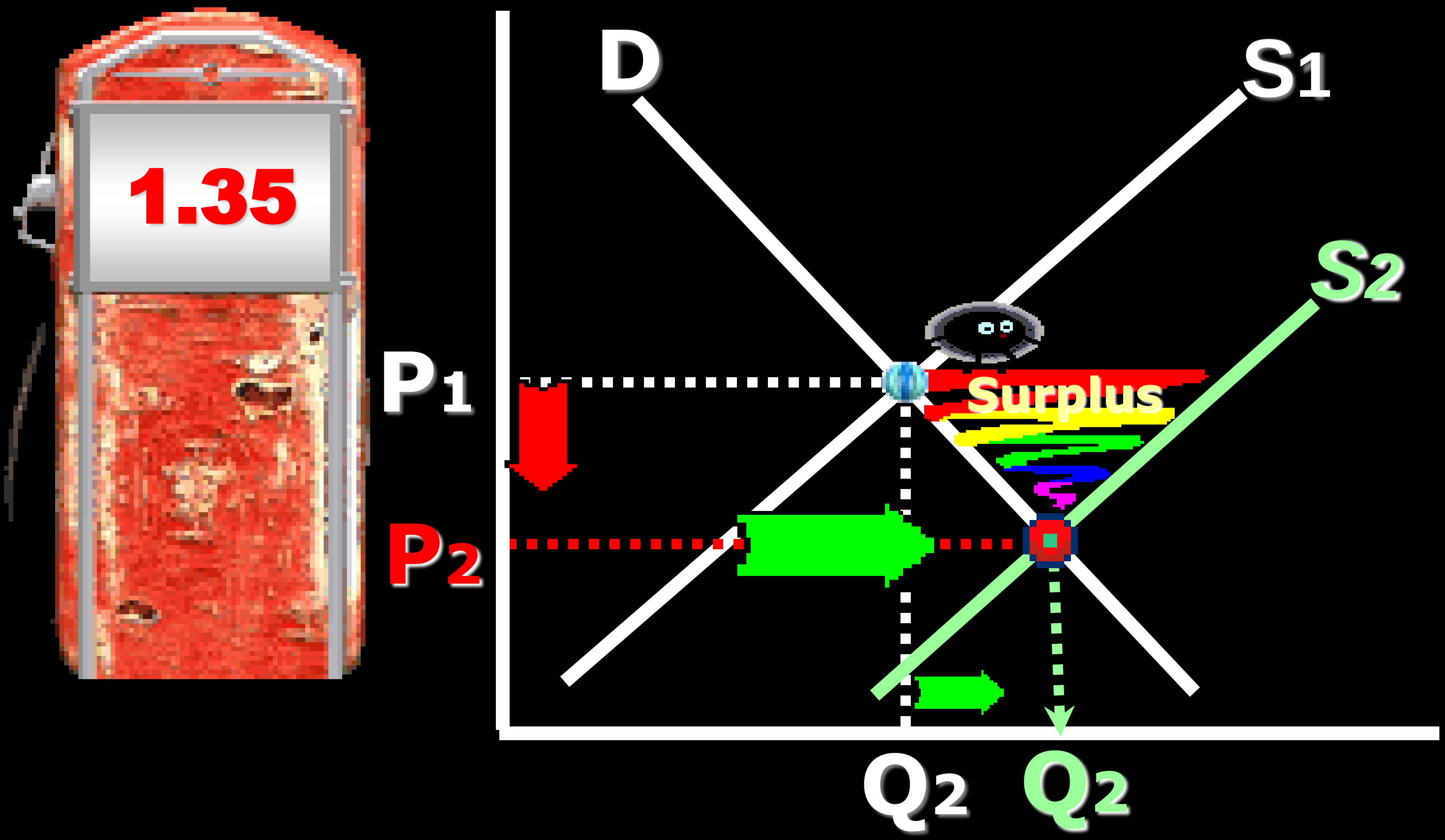
Decrease in Demand



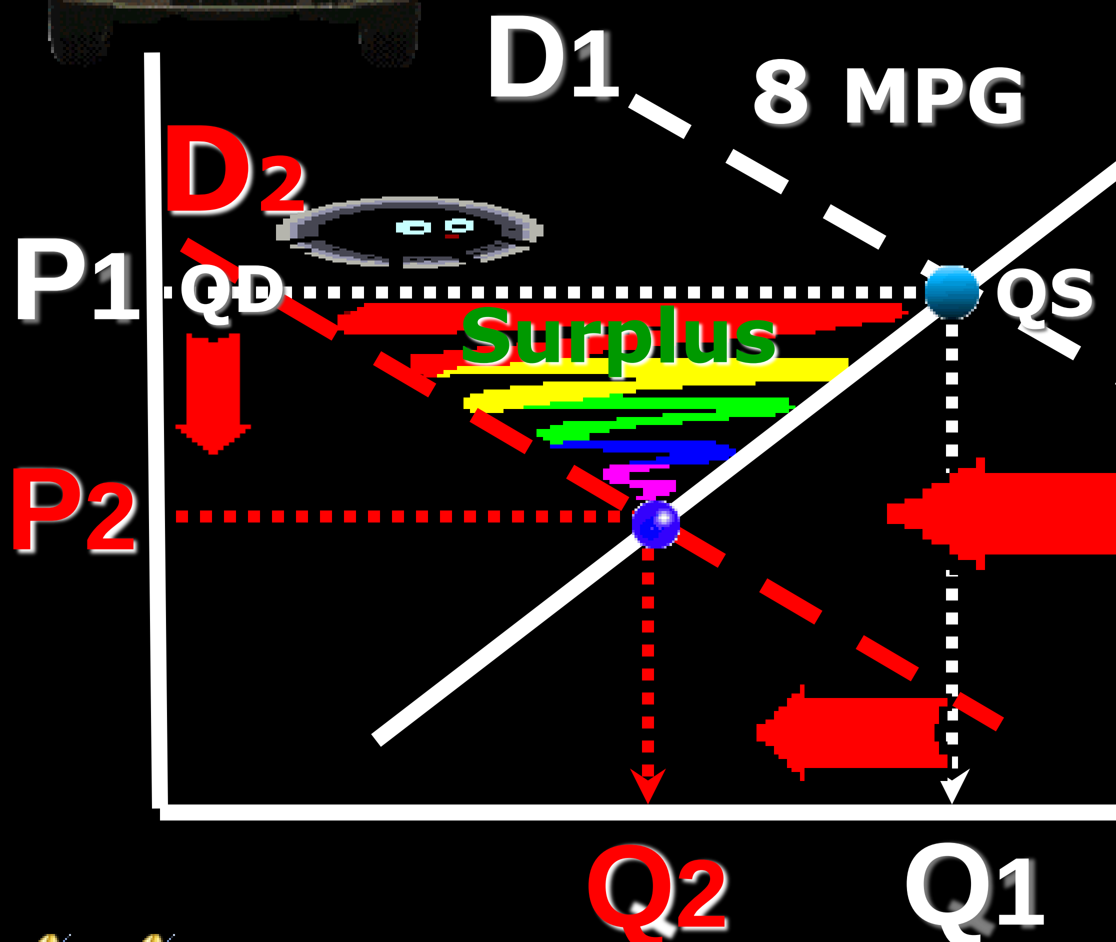
Decrease in Supply



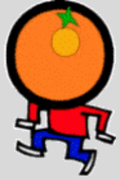
Increase in Supply



With Much Higher Gas Prices, What Happens In The SUV/RV Market



Juicy "Orange" Prices



Decide if the price of oranges is going to **rise**, **fall**, or **stay the same**.

__R__ 1. All of the growers meet & agree to grow fewer oranges next year.

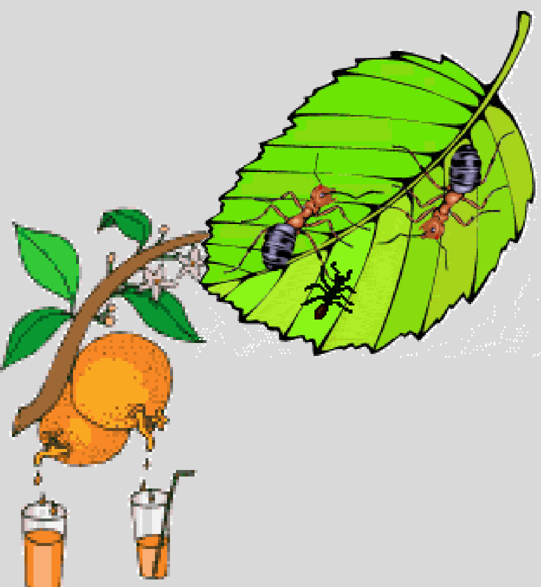
__F__ 2. Growers plant more acres of orange trees.

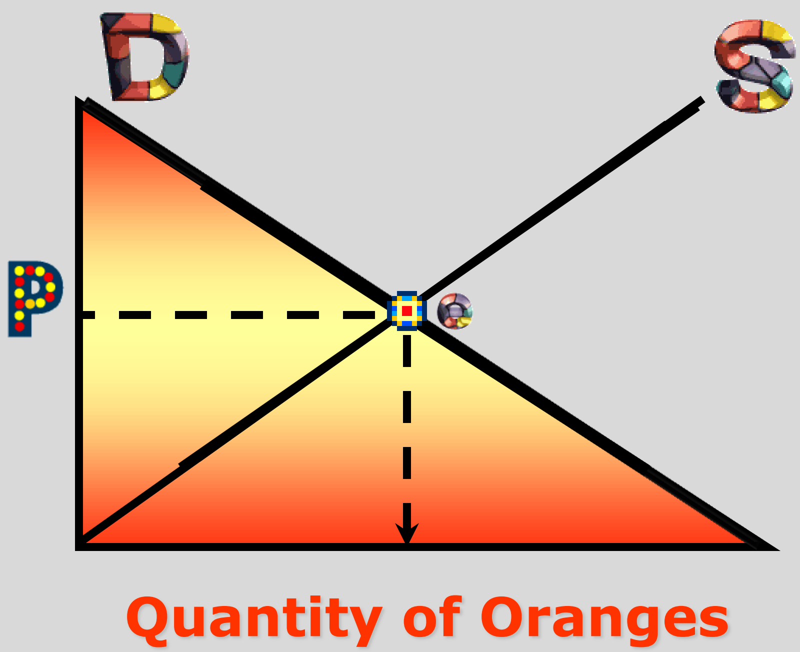
__R__ 3. Orange growers promote oranges as a symbol of good health.

__S__ 4. One grower [out of thousands] retires and stops growing oranges.

__R__ 5. Growers develop a bigger and better tasting orange.

__R__ 6. Orange growers struck by the disease-causing Mediterranean fruit fly.





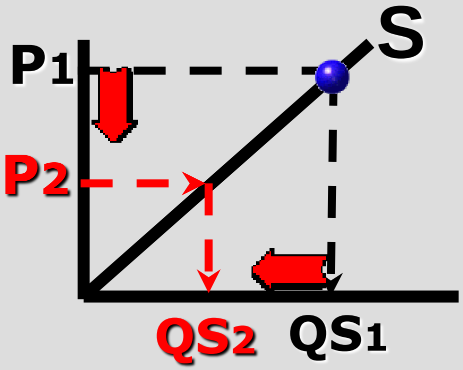
Change in QS ["Change in "price"]

Decrease in "QS"

[caused by a "decrease in price"]

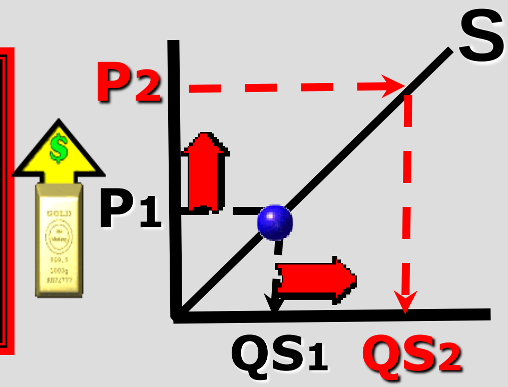
Increase in "QS"

[caused by an "increase in price"]

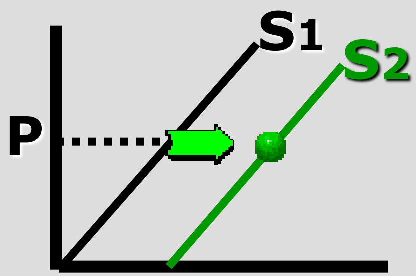


1. Price change
2. Movement
3. Point to point

["Snap shot of 1 pt in time]



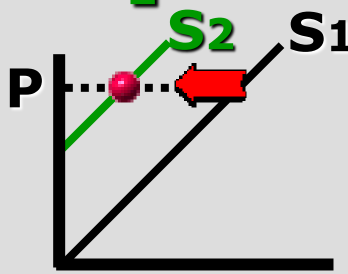
Change in "S" [RATNEST]



"Increase in S"

1. Non-price
2. Whole curve
3. Shift

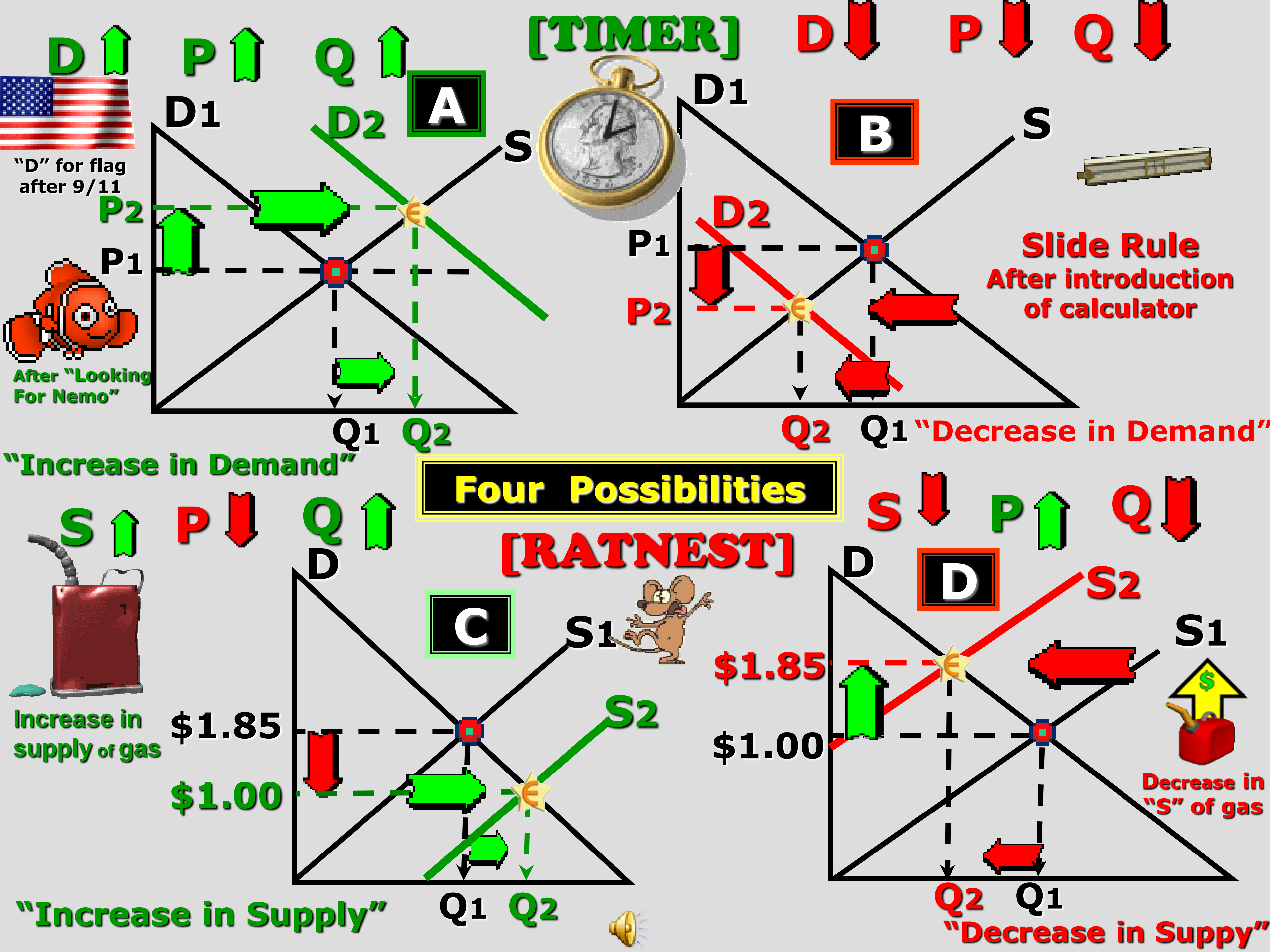
["Time passes"]



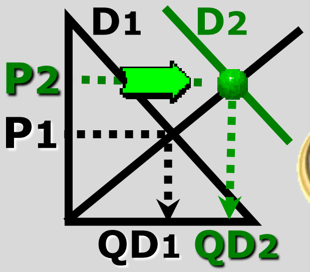
"Decrease in S"

What could cause an "increase in supply?"

1. Decrease in resource cost [wages/raw materials]
2. Decrease in the price of an alternative output for "X"
3. Producer expectations of a price decrease
4. Increase in number of producers
5. Increase in technology
6. Increase in subsidies
7. Decrease in taxes


Four Possibilities
[TIMER]
[RATNEST]
D P Q
"D" for flag after 9/11
After "Looking For Nemo"
D1
D2
A
S
P2
P1
Q1
Q2
"Increase in Demand"
D P Q
D1
B
S
D2
P1
P2
Slide Rule
After introduction of calculator
Q2
Q1
"Decrease in Demand"
S P Q
Increase in supply of gas
D
C
S1
S2
$1.85
$1.00
Q1
Q2
"Increase in Supply"
S P Q
D
D
S2
S1
$1.85
$1.00
$
Decrease in "S" of gas
Q2
Q1
"Decrease in Suppy"

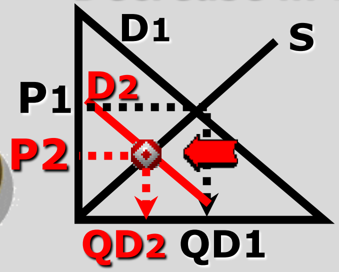
"Increase in D"



(A)

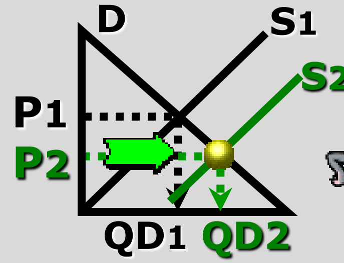
TIMER

"Decrease in D"



(B)

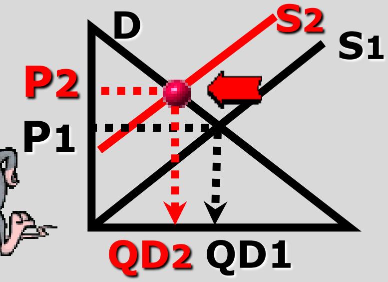
"Increase in S"



(C)

RATNEST

"Decrease in S"



(D)

__A__ 1. Decrease in **income** on market for **used cars**.

__B__ 2. Decrease in **income** on market for **new cars**.

__B__ 3. **Consumer expectations** about a **price decrease**.

__C__ 4. **Producer expectations** about a **price decrease**.

__C__ 5. Increase in **# of producers** on the market for **computers**.

__A__ 6. Increase in **# of consumers** on the market for **used cars**.

__A__ 7. Increase in **# of consumers** on the market for **new cars**.

__A__ 8. Decrease in the price of **iPods** upon the market for **iTune songs**.

__C__ 9. Decrease in **business taxes** on the market for **computers**.

__A__ 10. **Consumer expectations** of a shortage of **apples**.

__C__ 11. Decrease in **resource cost** on market for **computers**.

__D__ 12. Increase in price of **wheat** upon market for **corn**.

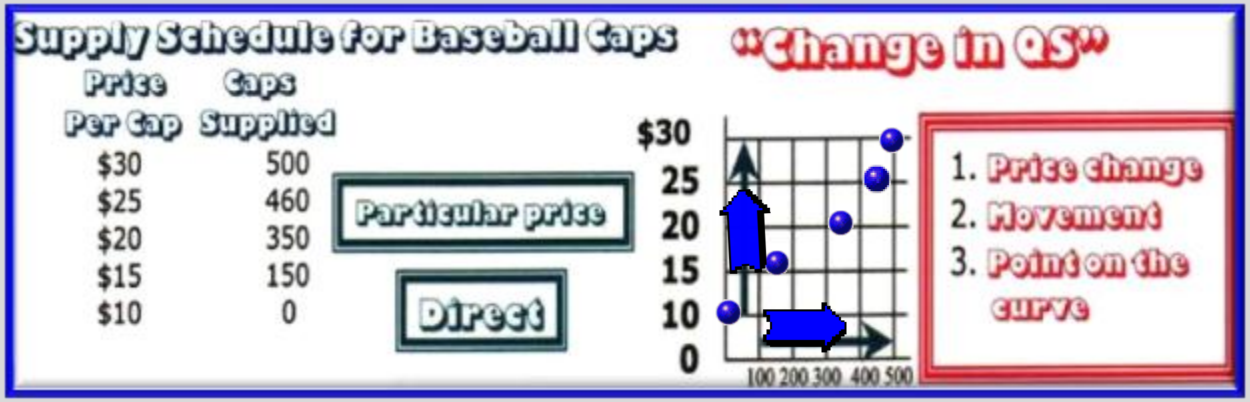
__A__ 13. **Consumer expectations** of a shortage of cell phones.

__D__ 14. **Producers expectations** about a price increase.

__A__ 15. Increase in **income** on the market for the **iPad 2**.

NS 41-53

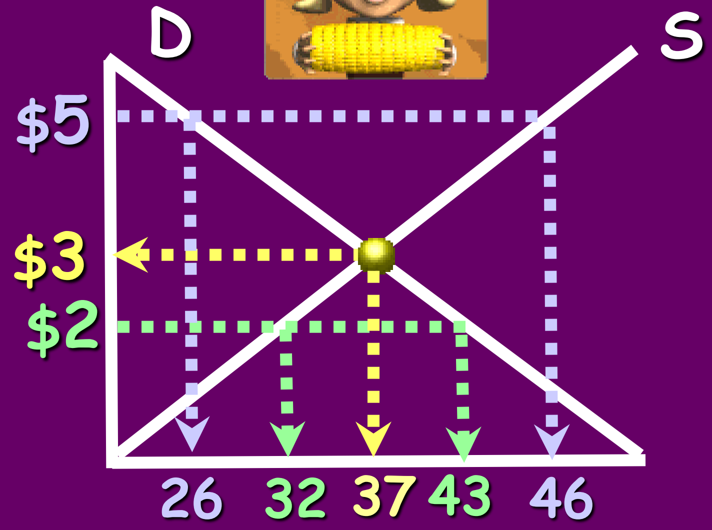
41. Supply – quantities producers offer at each (technique/price).
42. The relationship between price and QS is (direct/inverse) and the relationship between price and QD is (direct/inverse) or opposite.
43. The "law of supply" indicates that producers will offer (less/more) at higher prices.
44. In moving along a stable supply/demand curve, (income/price) is not held constant.



45. (Inelasic/Elastic) supply-when QS is very responsive to price.
46. (Inelastic/Elastic) supply-when a change in price has little impact on QS.
47. The 3-item test for elastic supply is: the item can be made quickly, it tends to be cheap, & it can be produced by (skilled/unskilled) workers.
48. The 3-item test for inelastic supply is: the item cannot be made quickly, it tends to be expensive, & (skilled/unskilled) workers.
49. An example of inelastic supply is (posters/computers/T-shirts).
50. An example of elastic supply is (HDTV/computers/T-shirts).
51. The supply curve for elastic supply is more (flat/vertical).
52. The supply curve for inelastic supply is more (flat/vertical).
53. A decrease in the price of cattle feed will cause the (D/S) curve for beef to shift.

NS 61-64

Bushels Demanded	Corn Price	Bushels Supplied
26	$5	46
32	$4	41
37	$3	37
43	$2	32
48	$1	29



61. **Equilibrium price** will be ($1/$2/$3/$4/$5).
62. If the **price** in this market were **$2**, farmers (would/would not) be able to sell all their corn.
63. If the **price were initially $5**, we would expect the price of corn supplied to (increase/decrease) as a result of the price change.

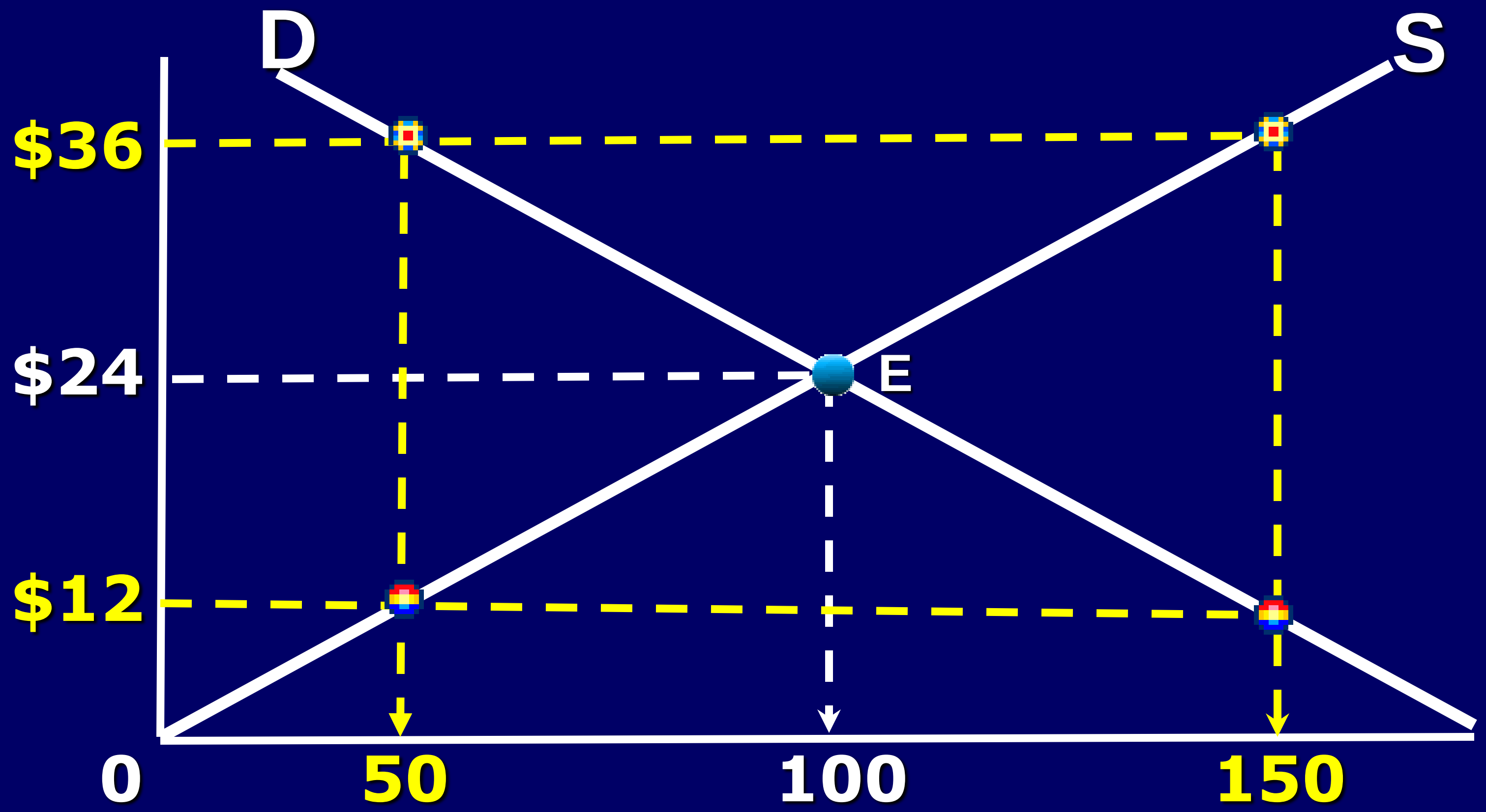
NS 64-67

64. A price of **$36** will result in a (shortage/<u>surplus</u>) of (50/<u>100</u>).

65. **Price & quantity** will gravitate toward ($12 & 150/<u>$24 & 100</u>).

66. The **highest price that buyers will be willing & able to pay for 50 units** is ($12/$24/<u>$36</u>).

67. A price of **$12** in this market will result in a (surplus/<u>shortage</u>) of (50/<u>100</u>).



Change in Demand [curve]

Increase in Demand [curve]

1. Increase in Taste for all goods
2. Increase in income [for a normal good like new cars]
3. Decrease in income [for an inferior good like used cars]
4. Increase in # of consumers [market size] for any good
5. *Consumer expectations of a price increase
6. Consumer expectations of a shortage
7. Consumer expectations of positive future income
8. *Increase in the price of a substitute [direct] for **product X**
9. *Decrease in the price of a complement [inverse] for **product X**

Decrease in Demand [curve]

1. Decrease in Taste for all goods
2. Decrease in income [for a normal good like iPhones]
3. Increase in income [for an inferior good like spam]
4. Decrease in # of consumers [market size] for any good
5. *Consumer expectations of a price decrease
6. Consumer expectations of large surpluses [price will fall]
7. Consumer expectations of negative future income
8. *Decrease in the price of a substitute [direct] for **product X**
9. *Increase in the price of a complement [inverse] for **product X**

"D" is a whole bunch of QD's strung together.

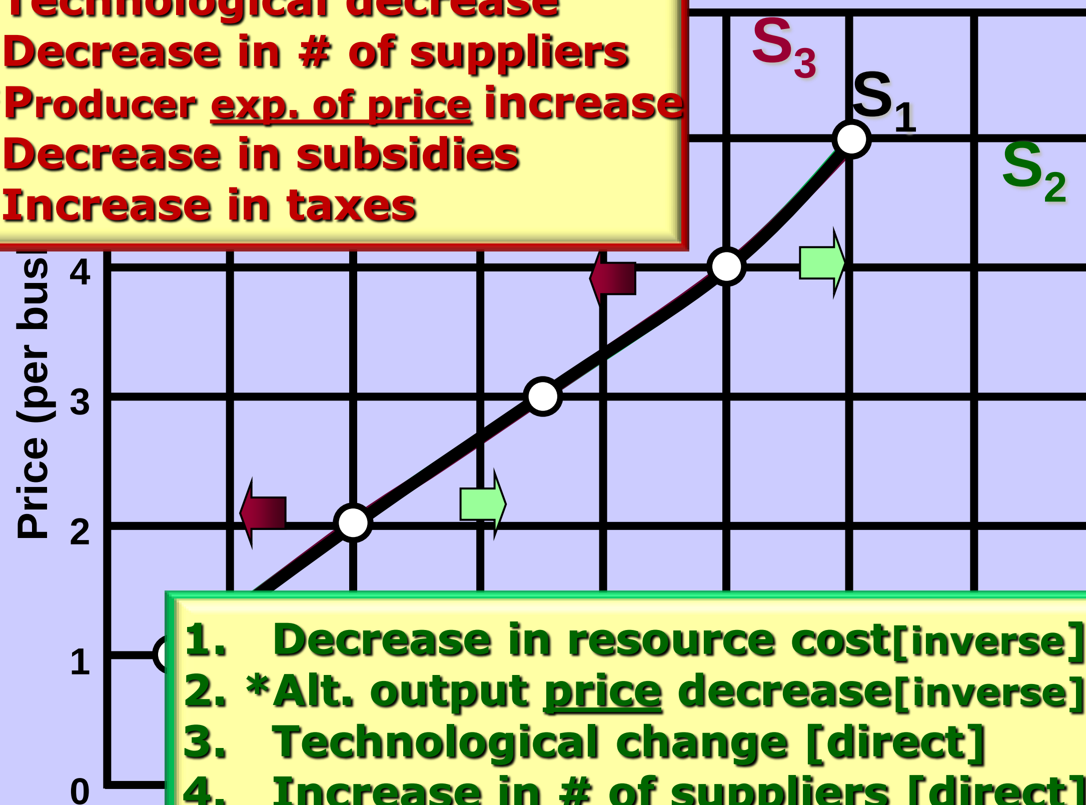
Increase or Decrease in Supply [curve]

Change in Supply ["RATNEST"]

1. Increase in resource cost
2. *Alt. output price increase
3. Technological decrease
4. Decrease in # of suppliers
5. *Producer exp. of price increase
6. Decrease in subsidies
7. Increase in taxes

Individual Supply

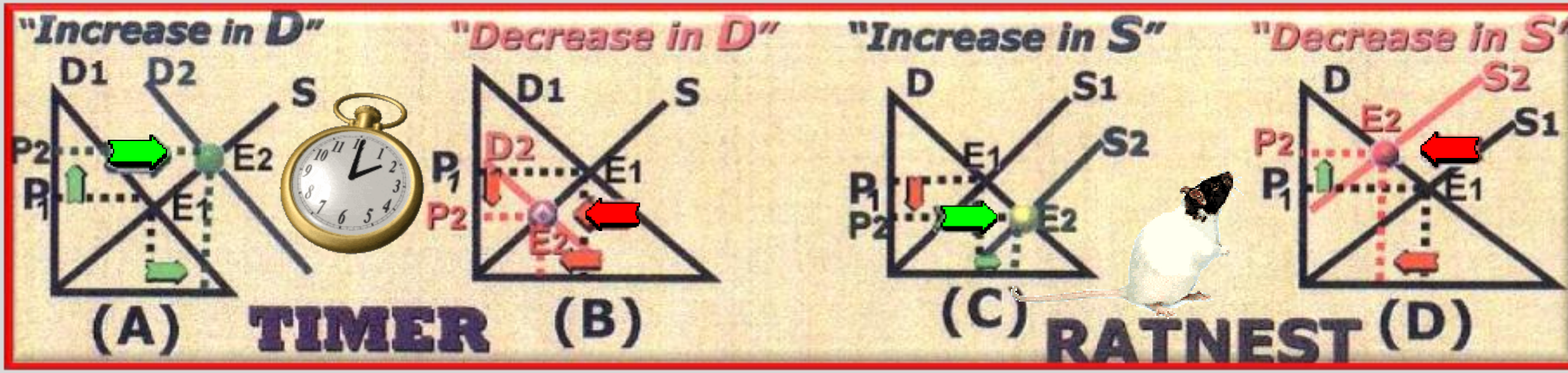
P	Q_s
$5	60
4	50
3	35
2	20
1	5



1. Decrease in resource cost[inverse]
2. *Alt. output price decrease[inverse]
3. Technological change [direct]
4. Increase in # of suppliers [direct]
5. *Producer exp. of price decrease[inverse]
6. Increase in subsidies [direct]
7. Decrease in taxes [inverse]

"S" is a whole bunch of QS's strung together.

NS 68-77

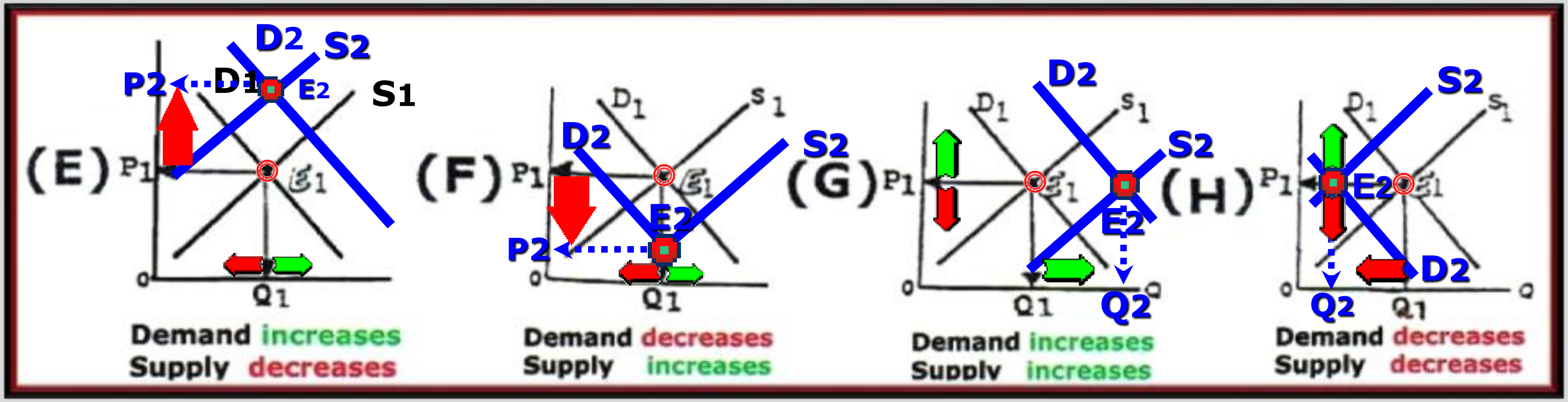


68. Increase in the price of **irrigation equipment** [**resource cost**] upon the market for **wheat** is illustrated by diagram (A/B/C/D).
69. Increase in **incomes** upon the market for **spam** is illustrated by diagram (A/B/C/D).
70. **Subsidy** for cancer research being taken away is illustrated by diagram (A/B/C/D).
71. Decrease in the price of **M&Ms** upon the market for **Snickers** is illustrated by (A/B/C/D).
72. Decrease in **worker wages** on the market for textiles is illustrated by (A/B/C/D).
73. Increase in the price of **cameras** upon the market for **film** is illustrated by (A/B/C/D).

---

74. A decrease in **income**, if "X" is an **inferior good** would (increase/decrease) (demand/supply), (increase/decrease) price, and (increase/decrease) quantity.
75. A decrease in the **number of consumers** for product "X" will (increase/decrease) (demand/supply), (increase/decrease) price, and (increase/decrease) quantity.
76. **Producer expectations** that the price of **"X"** will decrease sharply in the future will (incr/decr) (demand/supply), (incr/decr) price, & (incr/decr) quantity.
77. A decrease in the price of a product which is a **substitute** to **"X"** will (incr/decr) (supply/demand), (incr/decr) price, (incr/decr) quantity.

NS 78 - 81



78. If **demand increases** and **supply decreases**, equilibrium price will (<u>incr</u>/decr/stay the same) & equilibrium quantity will (incr/decr/<u>stay the same</u>).

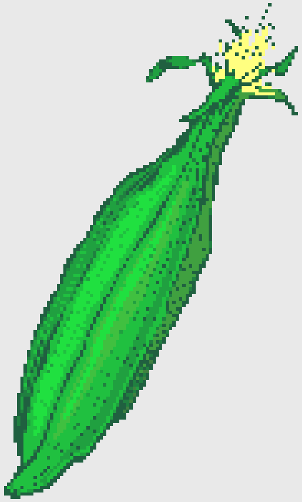
79. If **demand decreases** and **supply increases**, equilibrium price will (incr/<u>decr</u>/stay the same) & equilibrium quantity will (incr/decr/<u>stay the same</u>).

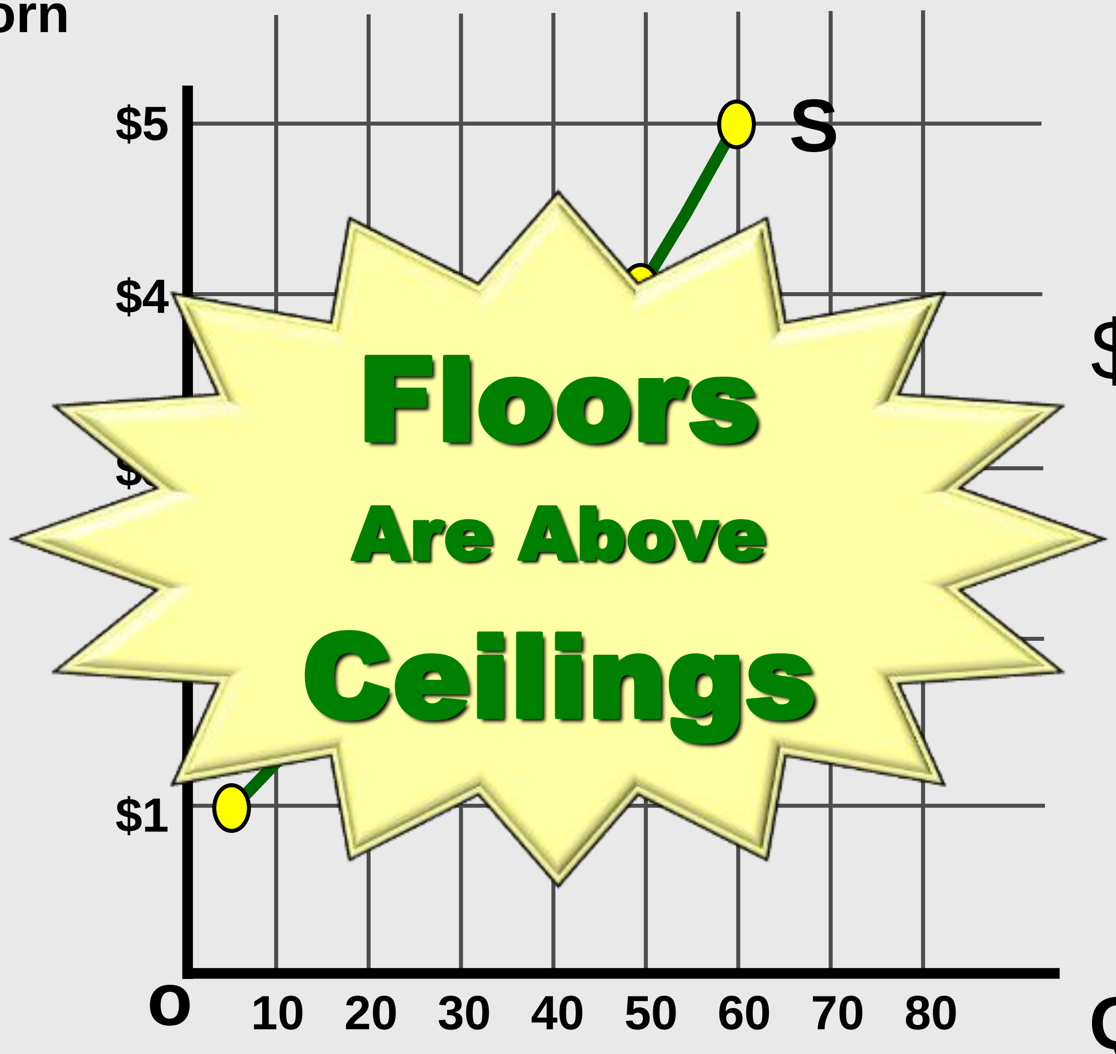
80. If the **supply and demand curves both increase**, equilibrium price will (incr/decr/<u>stay the same</u>) & equilibrium quantity will (<u>incr</u>/decr/stay the same).

81. If **demand and supply curves both decrease**, equilibrium price will (incr/decr/<u>stay the same</u>) & equilibrium quantity will (incr/<u>decr</u>/stay the same).

*Staying the same means **indeterminate**, that is, the quantity could **increase**, **decrease**, or **stay the same**, depending on the **magnitude of the shifts**.

Let's Look at Floors & Ceilings





CORN

P	Q_S
$5	60
4	50
3	35
2	20
1	5

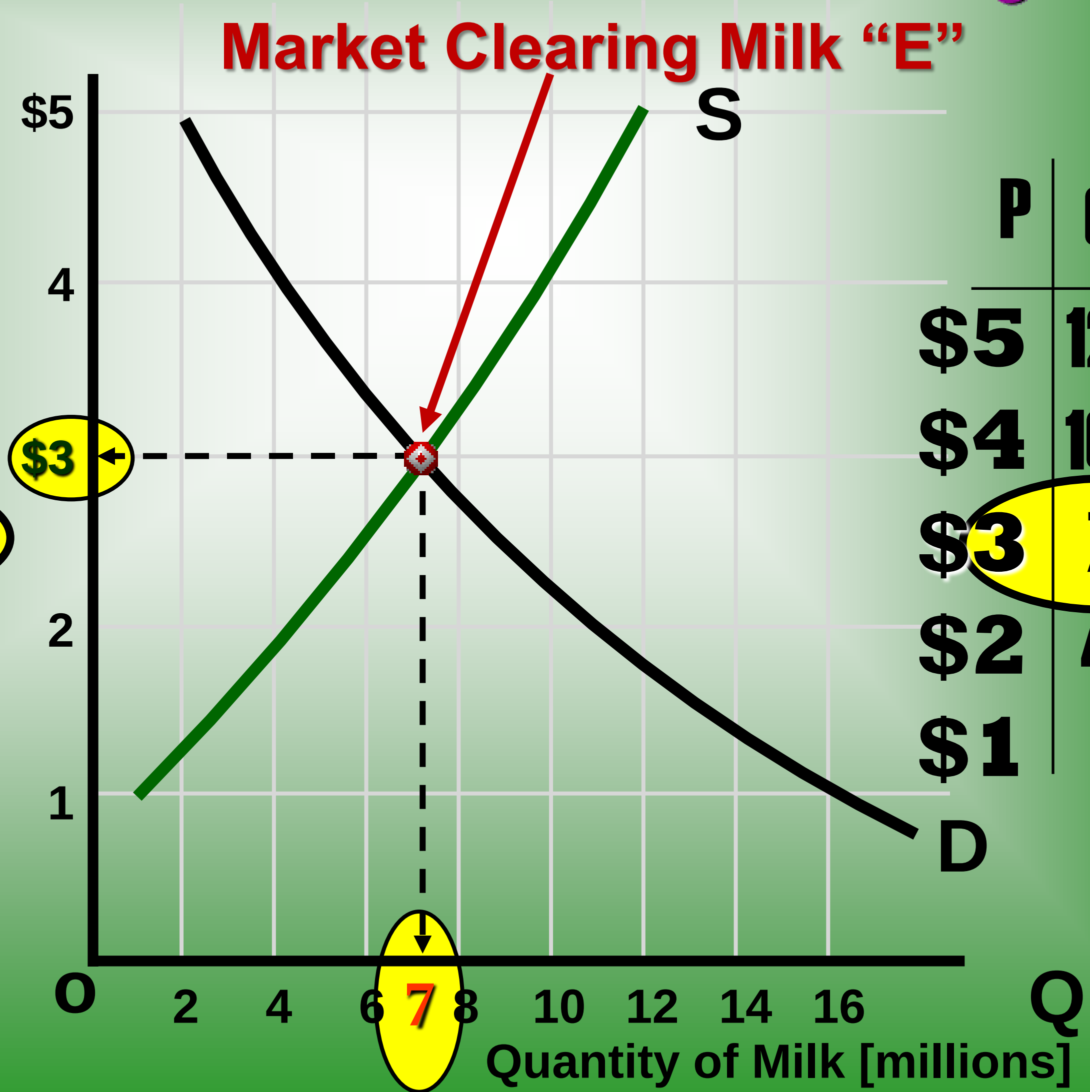
Milk MARKET

[for hypothetical country]

Milk

MARKET

P	Q_D
$5	2 Mil.
$4	4 Mil.
$3	7 Mil.
$2	11 Mil.
$1	16 Mil.



P	Q_S
$5	12 Mil.
$4	10 Mil.
$3	7 Mil.
$2	4 Mil.
$1	1 Mil.

Price Floor – minimum price [creates surpluses]

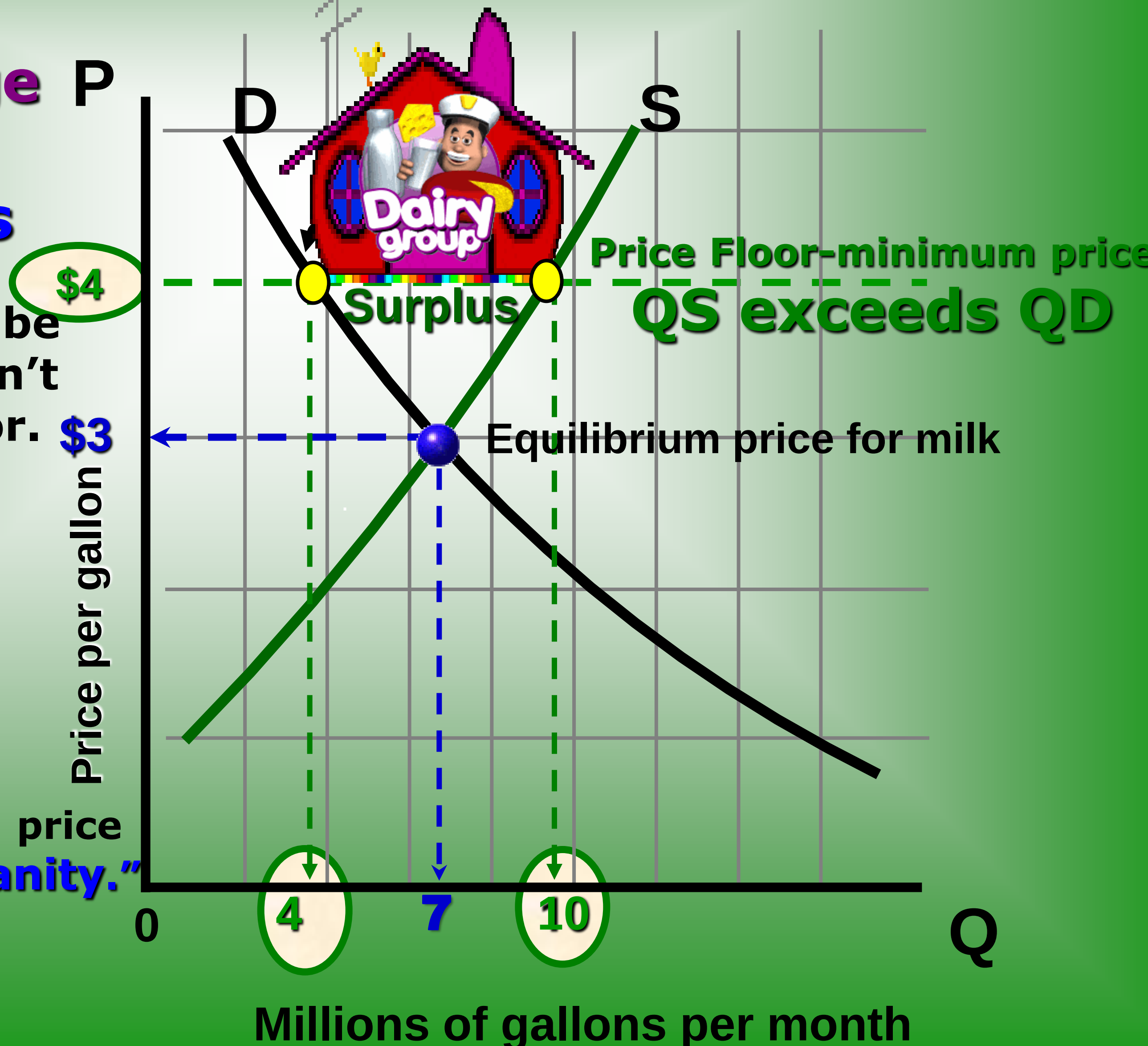
["When the G runs the economy, it turns everything upside down."]

Such as:

Minimum Wage

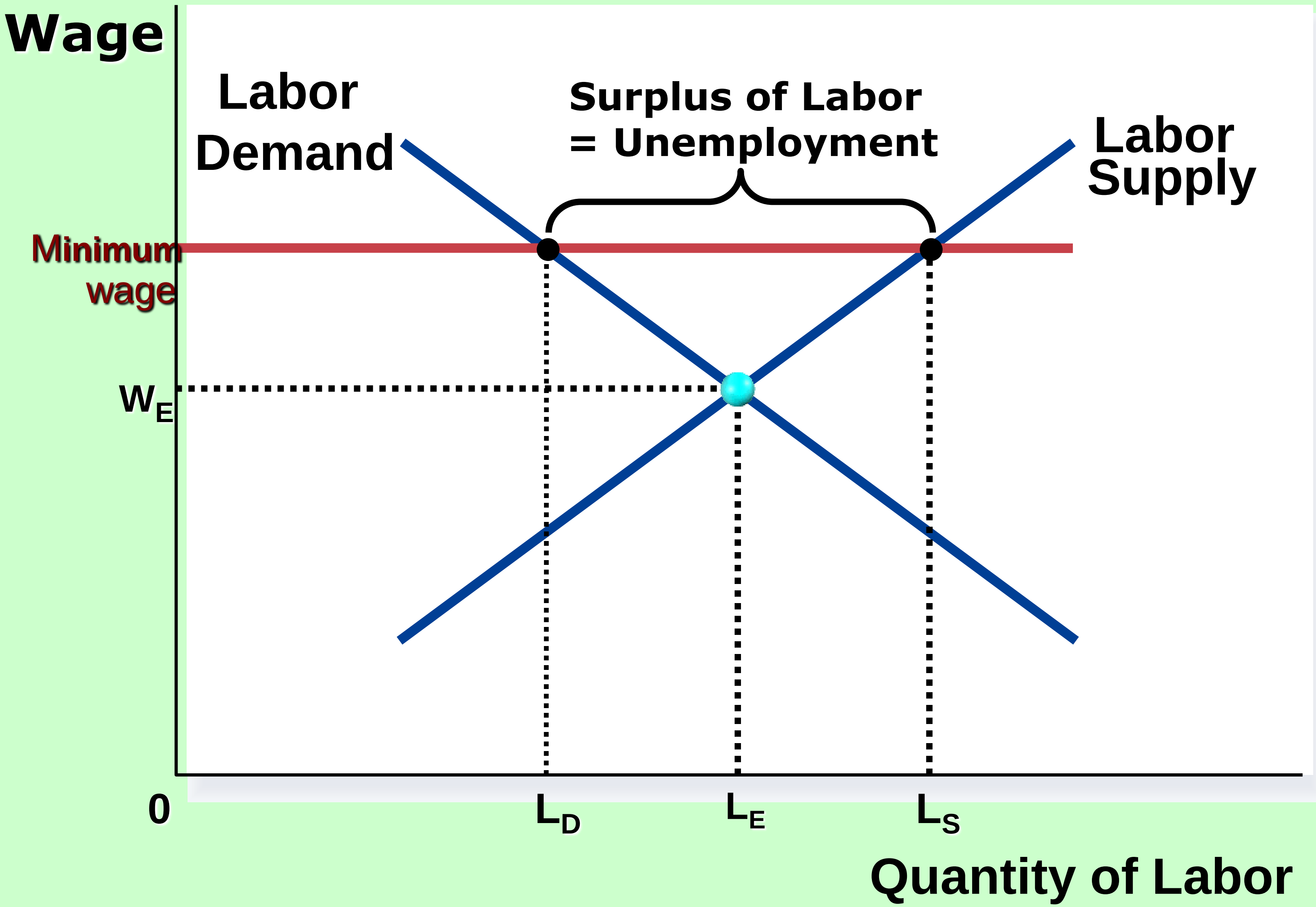
Agricultural Price Supports

The price has to be IN the house. It can't be below the floor.



Some call agricultural price supports "udder insanity."

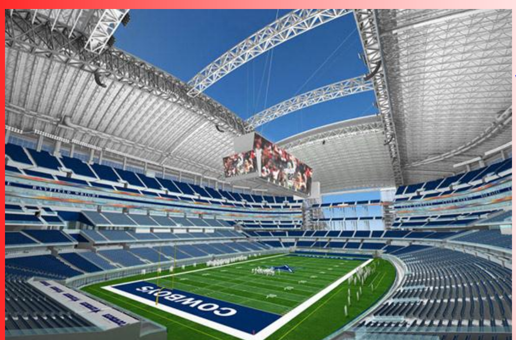
Wage Unemployment caused by a Price Floor



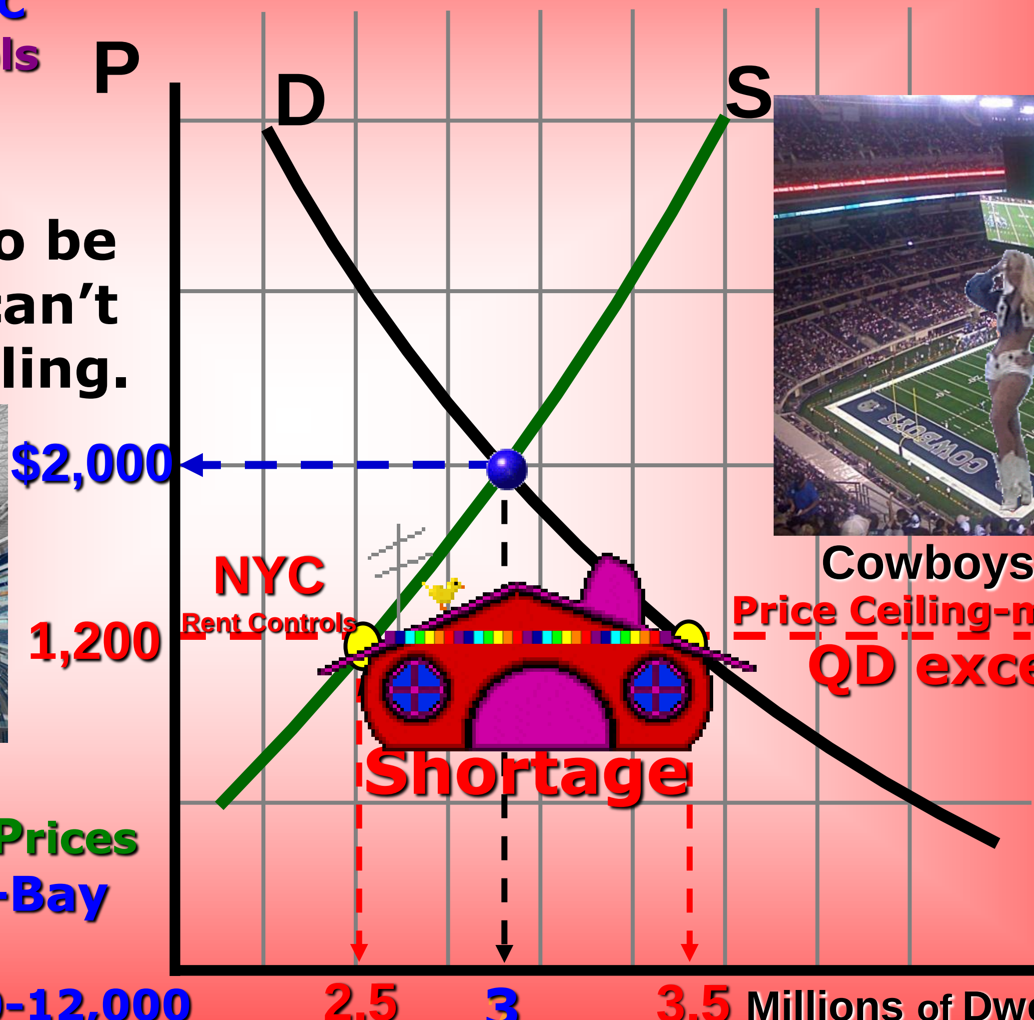
Price Ceiling – maximum price [creates shortages]

Such as:
Rent controls in NYC
Wartime price controls
Rock concert prices
Super Bowl tickets

The price has to be **in** the house. It can't be above the ceiling.



Cowboys Stadium



Millions of Dwellings Rented

Cowboys Stadium

Price Ceiling-maximum price

QD exceeds QS

Super Bowl Ticket Prices

E-Bay

1967 - $12.00

2011-$600-1,200 $2,700-12,000
[end zone - mid-field]

NFL could raise the price & make another $150 M but the average man couldn't attend.


Price Floor [Minimum Price]
In Economics, Floors Are Above Ceilings
Price Ceiling [Maximum Price]

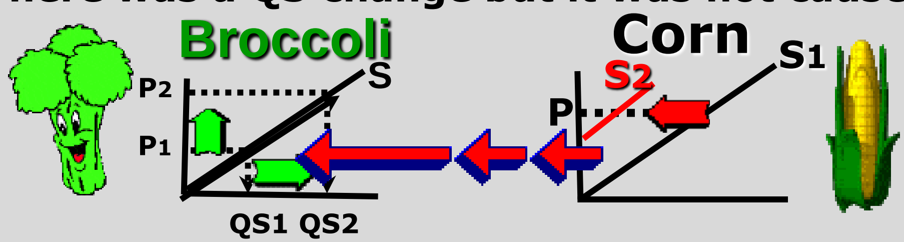
Change in "Supply" [Curve]

"RATNEST"

1. "Non-price change" [RATNEST]
2. Whole supply curve "shifts"

[There was a QS change but it was not caused by a change in price]

I only have 200 acres



Alternative Output Price Change [INVERSE]

"Substitutes in production"

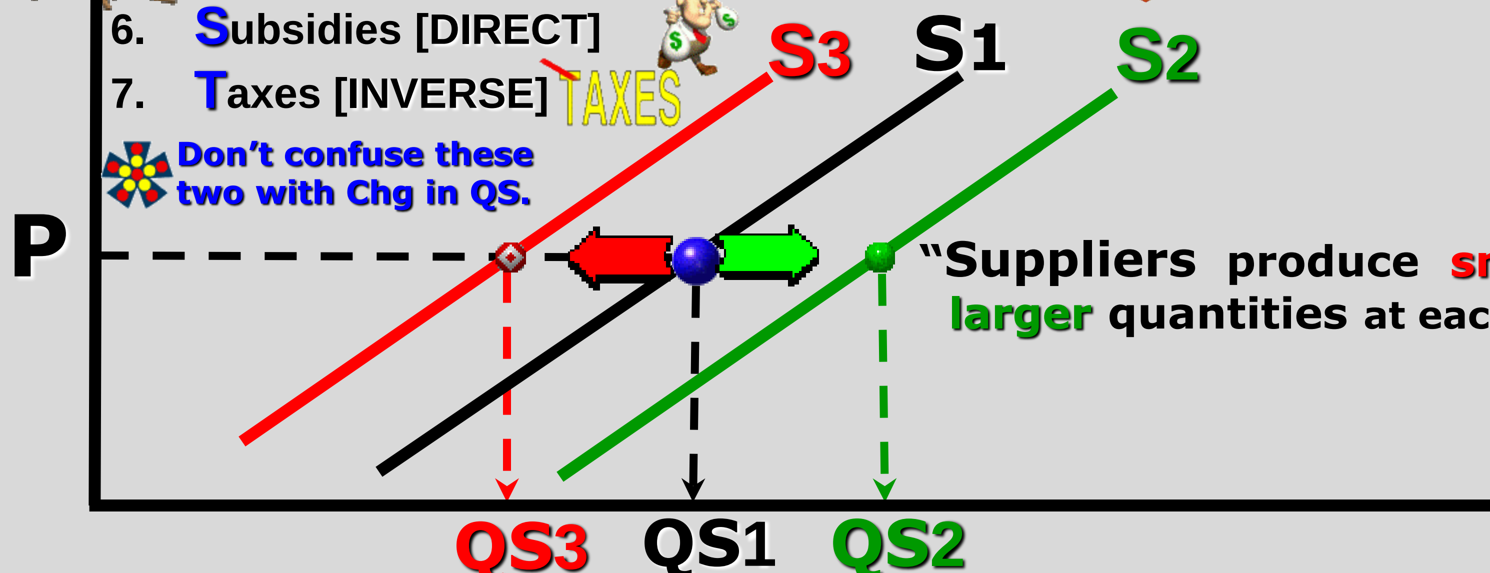
"Things that can be supplied with the same resources."

"Supply Shifters" [RATNEST]

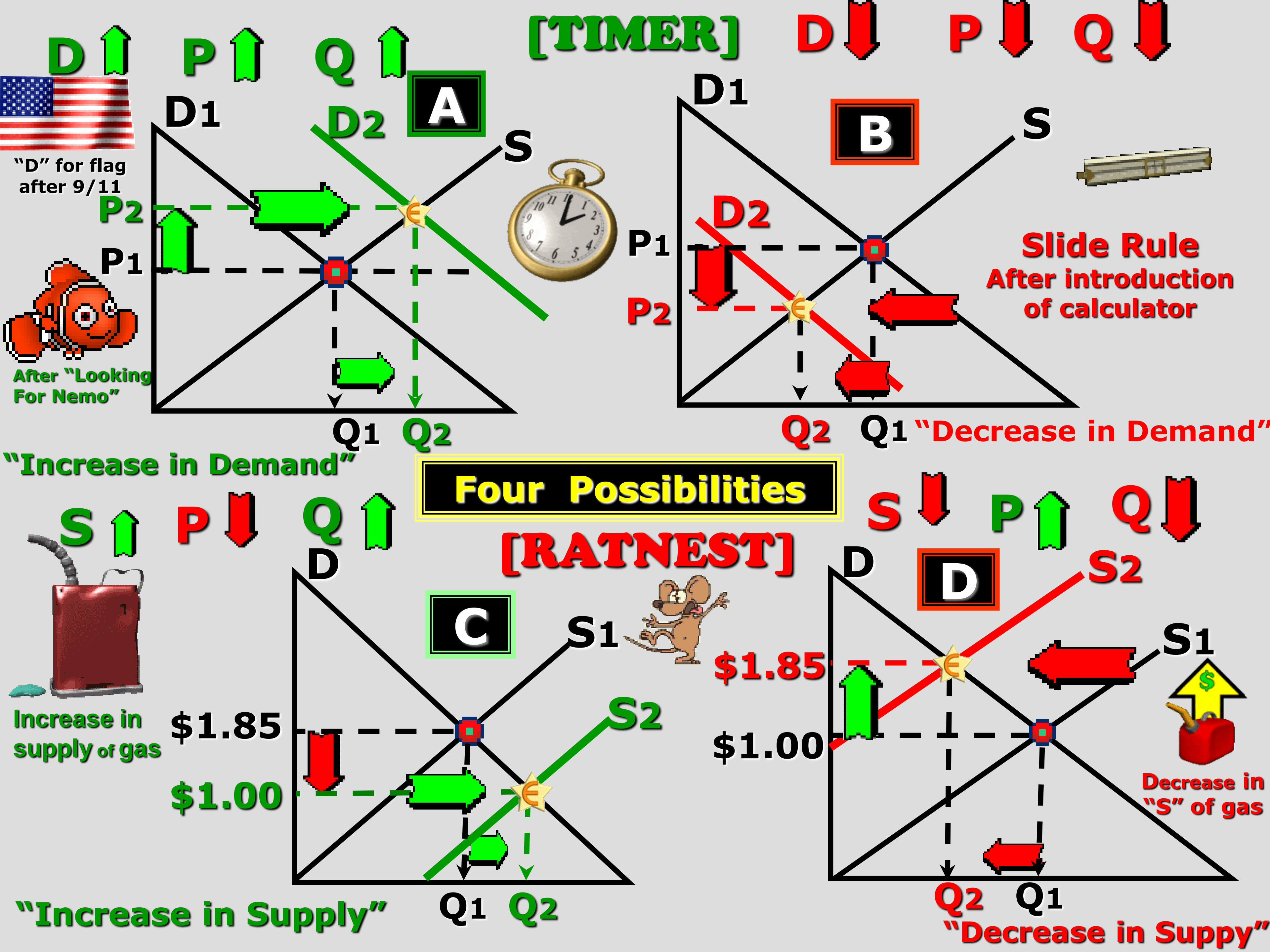
1. Resource Cost [wages/raw materials [capital cost]] [INVERSE]
2. Alternative Output Prices [INVERSE]
3. Technology [DIRECT]
4. Number of Suppliers [DIRECT] [new football league- bigger "S" of games]
5. Expectations [about future price] [INVERSE]
6. Subsidies [DIRECT]
7. Taxes [INVERSE]

TAXES

Don't confuse these two with Chg in QS.



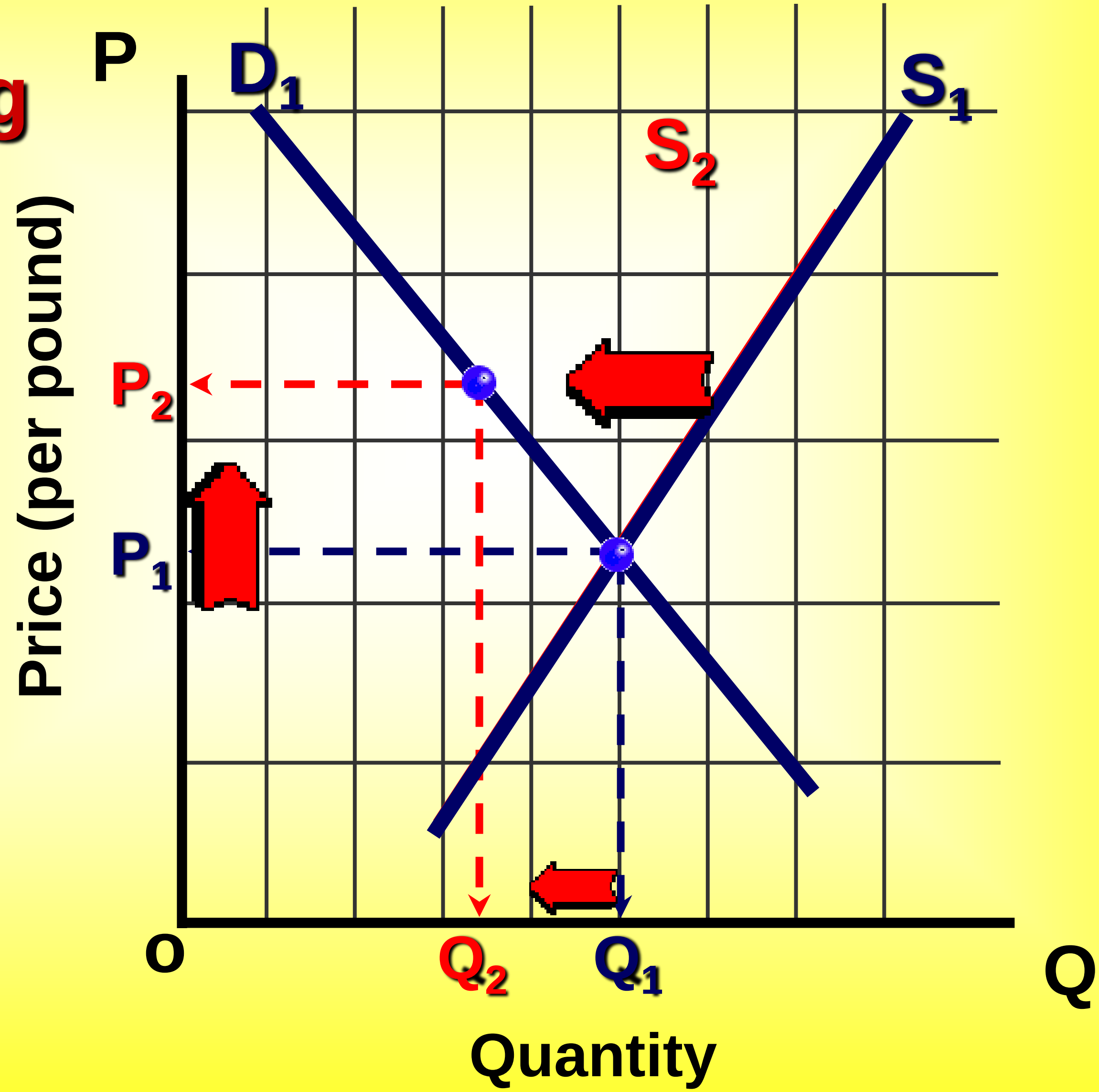
"Suppliers produce smaller/ larger quantities at each price."



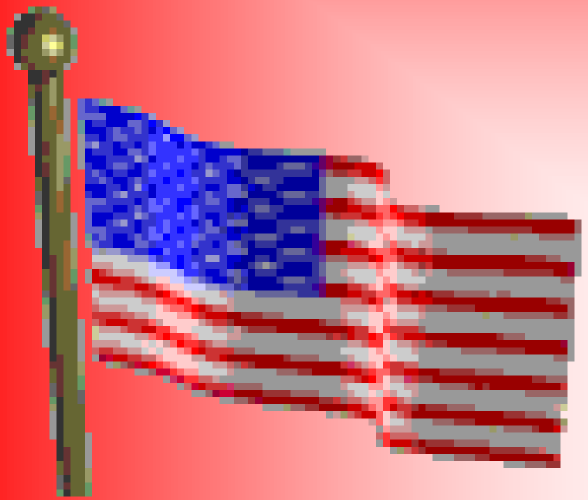
[TIMER]
Four Possibilities
[RATNEST]
D P Q
"D" for flag after 9/11
After "Looking For Nemo"
D1
D2
A
S
P2
P1
Q1
Q2
"Increase in Demand"
D P Q
D1
B
S
D2
P1
P2
Slide Rule
After introduction of calculator
Q2
Q1
"Decrease in Demand"
S P Q
Increase in supply of gas
D
C
S1
S2
$1.85
$1.00
Q1
Q2
"Increase in Supply"
S P Q
D
D
S2
S1
$1.85
$1.00
Decrease in "S" of gas
Q2
Q1
"Decrease in Suppy"

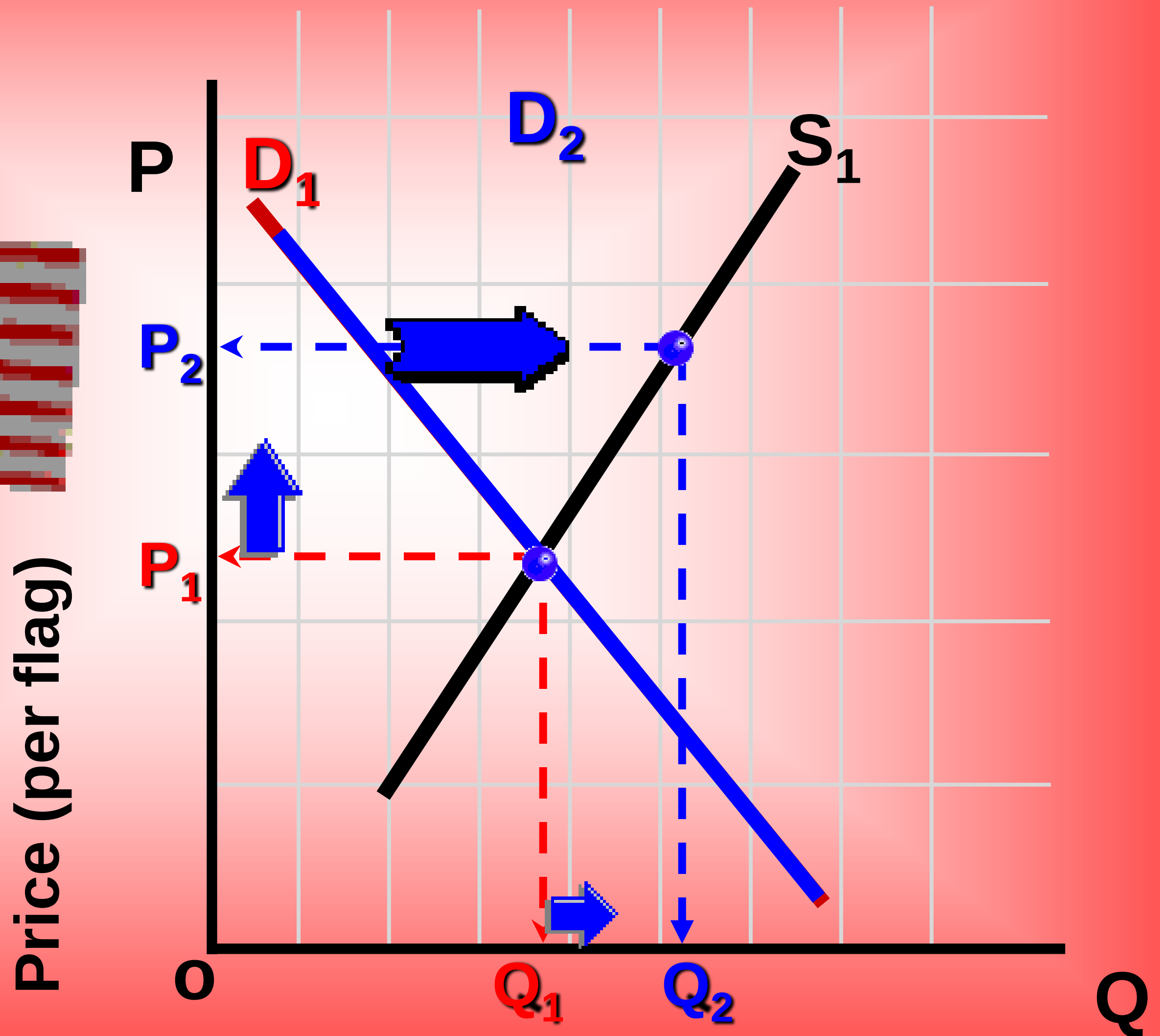
Banana Supply & Demand

Crop Freezing Damage…



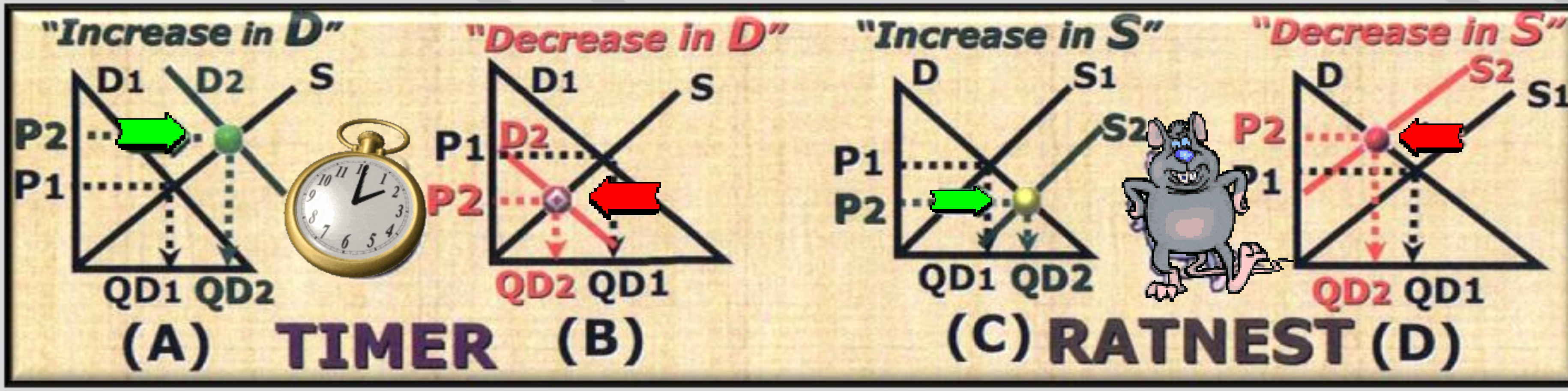
American Flags After 9-11





Patriotism Surge after 9/11…

"TIMER"[D] or "RATNEST"[S]



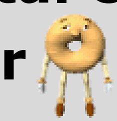
_**A**_1. **Increase in income on the market for camcorders.**

_**A**_2. **Increase in # of consumers on market for computers.**

_**D**_3. **Producer expectations about a price increase.**

_**A**_4. **Consumer expectations about a price increase.**

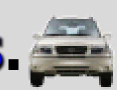
_**C**_5. **Increase in # of producers on market for digital cameras.**

_**D**_6. **Increase in resource cost on the market for**  **bagels.**

_**A**_7. **Increase in the price of Apple's iPad on the market for Samsung's Galaxy Tab.**

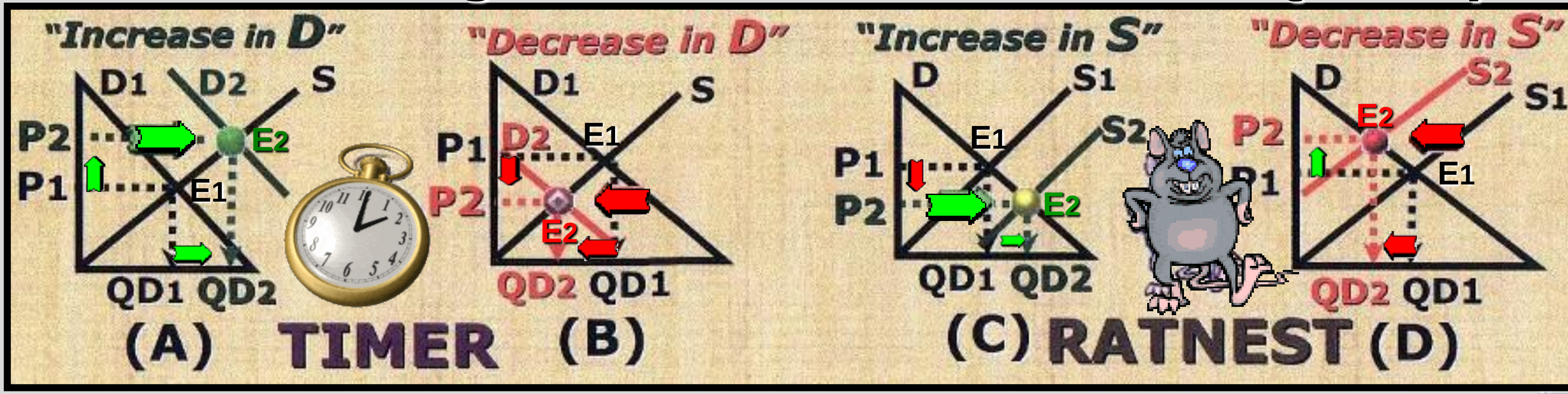
_**B**_8. **Increase in the price of tea on the market for**  **lemon.**

_**D**_9. **Increase in business taxes on the market for SUVs.**

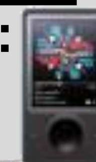


_**A**_10. **Consumers expect a shortage of the iPhone 4.**

Effect of Changes in "D" or "S" on Price and Quantity



1. An increase in income if Microsoft's Zune is a normal good would:



a. increase D, increase P, & increase Q. b. increase D, increase P, & decrease Q.
c. increase S, increase P, & increase Q. d. decrease D, increase P, & increase Q.

2. A decrease in the price of resources used to produce laptops will:

a. increase S, increase P, & increase Q. b. increase D, increase P, & increase Q.
c. decrease S, decrease P, & decrease Q. d. do none of the above

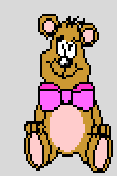
3. Decrease in price of butter on the market for the substitute margarine:

a. increase D, increase P, & decrease Q. b. decrease D, decrease P, & increase Q.
c. decrease D, increase P, & decrease Q. d. do none of the above

4. An improvement in technology used to produce DVDs will:

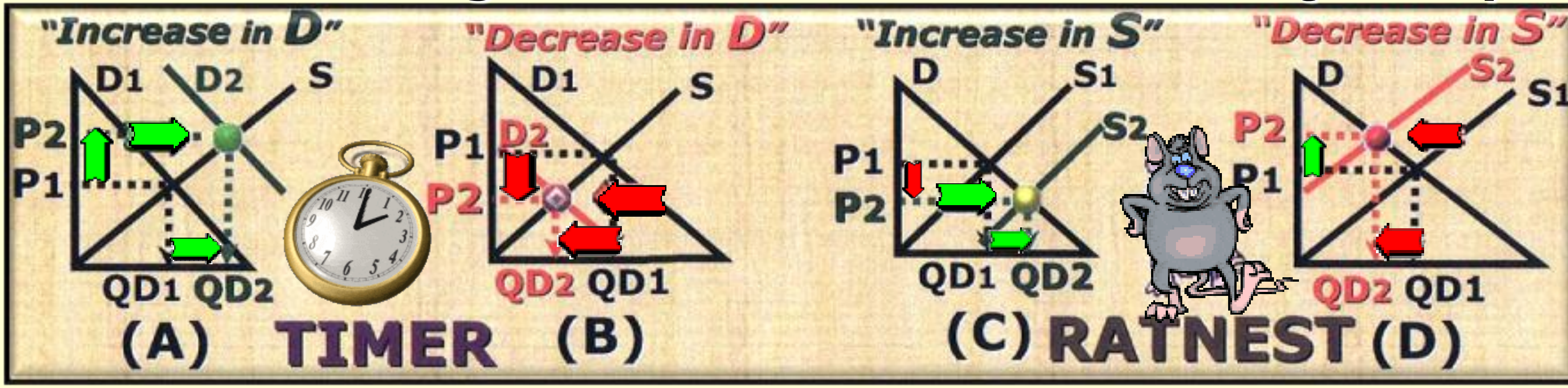
a. decrease S, increase P, & decrease Q. b. decrease S, increase P, & increase Q.
c. increase S, decrease P, & increase Q. d. decrease D, decrease P, & decrease Q.

5. A decrease in the number of consumers for iFuzzy iWuzzies:



a. decrease S, decrease P, & decrease Q. b. increase D, increase P, & increase Q.
c. decrease D, decrease P, & decrease Q. d. decrease D, decrease P, & increase Q.

Effect of Changes in "D" or "S" on Price and Quantity



6. **A decrease in taste for Fuzzy Wuzzies would:**

a. increase D, increase P, & increase Q.
b. decrease D, increase P, & decrease Q.
c. increase S, increase P, & increase Q.
d. decrease D, decrease P, & decrease Q.

7. **A reduction in the number of firms producing laptops:**

a. increase S, increase P, & increase Q.
b. increase D, increase P, & increase Q.
c. decrease S, increase P, & decrease Q.
d. decrease S, decrease P, decrease Q.

8. An increase in the price of pancakes, a **complement** for syrup would:

a. increase D, increase P, & decrease Q.
b. decrease D, decrease P, & increase Q.
c. decrease D, decrease P, & decrease Q.
d. do none of the above

9. **A decrease in income upon the market for spam would:**

a. decrease S, increase P, & decrease Q.
b. decrease S, increase P, & increase Q.
c. increase D, decrease P, & increase Q.
d. increase D, increase P, & increase Q.

10. **Consumer expectations that the price of iPad will increase by 50% in the future will:**

a. decrease S, decrease P, & decrease Q.
b. increase D, increase P, & increase Q.
c. decrease D, decrease P, & decrease Q.
d. decrease D, decrease P, & increase Q.

[D – "TIMER"; QD – price change of product (inverse)]

C 1. Which of the following will cause an **"Increase in Demand"** **for computers?**

a. decrease in price of computers b. decrease in income c. increase in income d. increase in price of computers

A 2. Which of the following will cause an **"Increase in QD"** **for computers?**

a. decrease in price of computers b. decrease in income c. increase in income d. increase in price of computers

C 3. Which of the following will cause a **"Decrease in Demand"** **for plasma TVs?**

a. increase in price of plasma TVs b. decrease in price of plasma TVs c. decrease in # of consumers

A 4. Which of the following will cause a **"Decrease in QD"** **for plasma TVs?**

a. increase in price of plasma TVs b. decrease in price of plasma TVs c. decrease in # of consumers (market size)

[S – "RATNEST"; QS – price change of product (direct)]

5. Which of the following will cause an **"Increase in Supply"** **for DVDs?**

a. decrease in price of DVDs
b. increase in price of DVDs
c. decrease in resource cost
d. expectations of price increase

6. Which of the following will cause an **"Increase in QS"** **for DVDs?**

a. decrease in price of DVDs
b. increase in price of DVDs
c. decrease in resource price
d. expectations of price increase

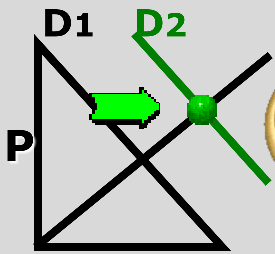
7. Which of the following will cause a **"Decrease in Supply"** **for DVDs?**

a. increase in price of DVDs
b. decrease in price of DVDs
c. subsidies to suppliers of DVDs
d. expectations of price increase

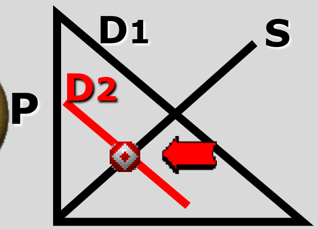
8. Which of the following will cause a **"Decrease in QS"** **for digital cameras?**

a. increase in price of cameras
b. decrease in price of cameras
c. subsidies to suppliers of cameras
d. expectations of digital camera price increase

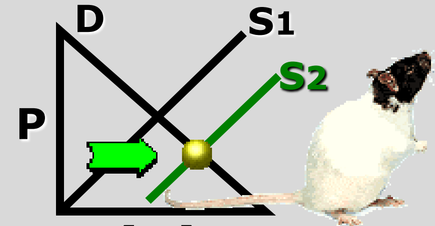
"Increase in D"



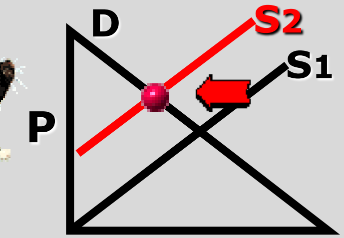
"Decrease in D"



"Increase in S"



"Decrease in S"



(A) **TIMER** (B) (C) **RATNEST** (D)

__B__ 1. Increase in price of **computers** on market for **software.**

__C__ 2. Decrease in **auto worker wages** on the market for autos.

__B__ 3. Decrease in the price **Pepsi** on the market for  **Coke**.

__C__ 4. Decrease in the price of **computer chips** on the **computer** market.

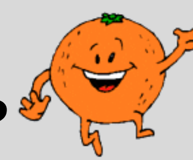
__D__ 5. Increase in price of **fertilizer** on the market for **wheat**.

__D__ 6. Decrease in government **subsidies** on market for AIDS research.

__B__ 7. Increase in **incomes** on market for **used clothing**.

__C__ 8. A **new professional soccer** league is formed upon the market for **soccer games**.

__D__ 9. **Producer expectations** that the price of orange juice will increase 30% in 3 weeks?



__A__ 10. **Consumer expectations** that the price of orange juice will increase 30% in 3 weeks?

__A__ 11. Decrease in price of **iPads** upon market for **iPad apps**?

Review for Demand/Supply Quiz

Before taking the

Demand [TIMER]
v.
Supply [RATNEST] Quiz,

let's review what the non-price TIMER Shifters and non-price RATNEST Shifters are.

Change in Demand [curve]

Increase in Demand [curve]

1. Increase in **Taste** for all goods
2. Increase in **income** [for a **normal good like new cars**]
3. Decrease in **income** [for an **inferior good like used cars**]
4. Increase in **# of consumers [market size]** for any good
5. ***Consumer expectations** of a **price increase**
6. **Consumer expectations** of a **shortage**
7. **Consumer expectations** of **positive future income**
8. *Increase in the **price** of a **substitute [direct]** for **product X**
9. *Decrease in the **price** of a **complement [inverse]** for **product X**

Decrease in Demand [curve]

1. Decrease in **Taste** for all goods
2. Decrease in **income** [for a **normal good like iPhones**]
3. Increase in **income** [for an **inferior good like spam**]
4. Decrease in **# of consumers [market size]** for any good
5. ***Consumer expectations** of a **price decrease**
6. **Consumer expectations** of large **surpluses** [price will fall]
7. **Consumer expectations** of **negative future income**
8. *Decrease in the **price** of a **substitute [direct]** for **product X**
9. *Increase in the **price** of a **complement [inverse]** for **product X**

"D" is a whole bunch of QD's strung together.

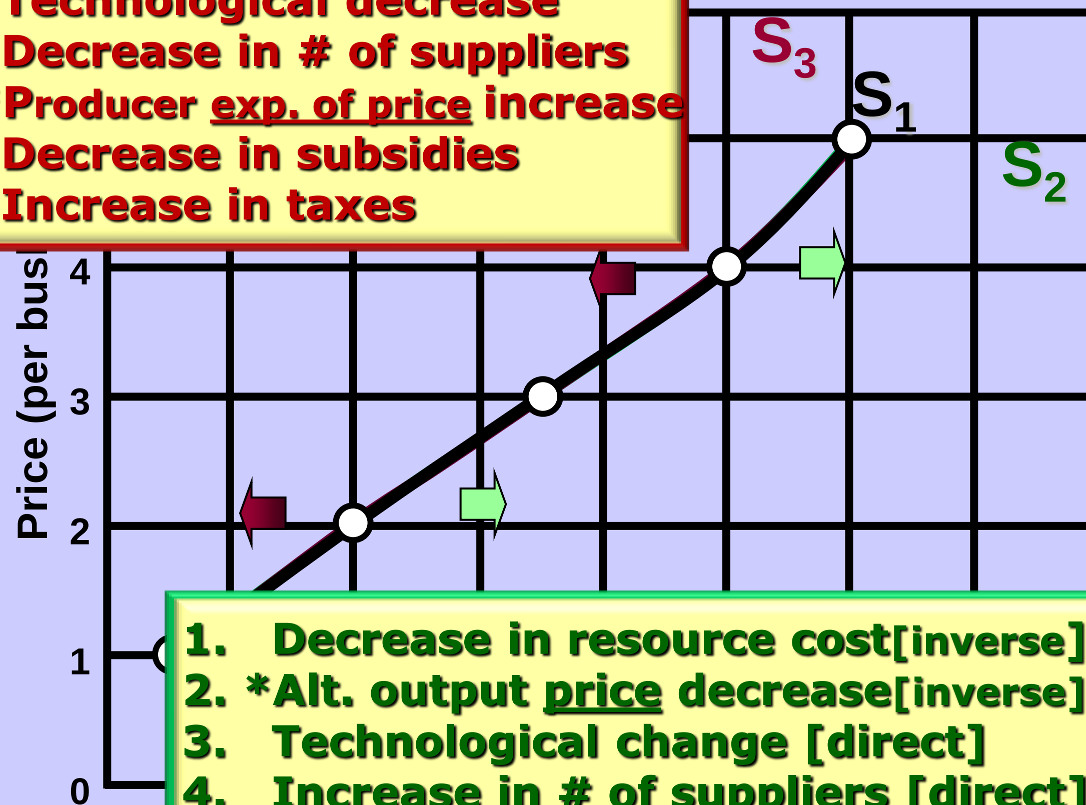
Increase or Decrease in Supply [curve]

Change in Supply [“RATNEST”]

1. Increase in resource cost
2. *Alt. output <u>price</u> increase
3. Technological decrease
4. Decrease in # of suppliers
5. *Producer <u>exp. of price</u> increase
6. Decrease in subsidies
7. Increase in taxes

Individual Supply

P	Q_s
$5	60
4	50
3	35
2	20
1	5



1. Decrease in resource cost[inverse]
2. *Alt. output <u>price</u> decrease[inverse]
3. Technological change [direct]
4. Increase in # of suppliers [direct]
5. *Producer <u>exp. of price</u> decrease[inverse]
6. Increase in subsidies [direct]
7. Decrease in taxes [inverse]

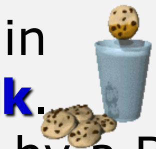
“S” is a whole bunch of QS’s strung together.

Milk Quiz Coming Up

Put + or –; D or S

S & D Quiz 1 for "Milk" ["+ or –"; "D" or "S"]

1. **Milk workers become unionized** and win an **increase in wages**.
2. A **decrease in price of the alternative output cheese** affect milk supply.
3. A negative report on the dangers of cholesterol affect the **taste** for milk.
4. Milk **demand** is affected by an **increase of 10 million consumers**.
5. **Cookies, a complement of milk**, increase in price and therefore affect the **demand for milk**.



I love to listen to opera by Jackie

Jackie E.

6. A **technological breakthrough** is discovered by a BL student who discovers that cows supply more milk if 10-year old YouTube sensation **Jackie Evancho is singing opera**. This got 30 million hits in one day.
7. **Milk producers expect** **milk** **prices to decrease 25%** in one week.
8. Due to a deadly cow plague (caused by too much cow belly dancing), **milk availability is expected** to shrink by 50% & impact the current demand for milk.
9. **Subsidies** for milk production are increased by 20 cents per gallon.
10. The **price of orange juice**, a **substitute** for milk, increased by **20%**.

5 Demand Shifters

1. **Taste - direct**
2. **Income[normal-direct; inferior-INVERSE**
3. **Market size (# of consumers – direct)**

7 Supply Shifters

1. **Resource cost [wages/raw materials – INVERSE**
2. **Alternative output price changes - INVERSE**
3. **Technology – direct**

1. –S 2. +S 3. –D 4. +D 5. –D

6. +S 7. +S 8. +D 9. +S 10. +D

S & D Quiz 2 for "Milk" ["+ or –"; "D" or "S"]

1. Milk producers hire fewer union workers, **decreasing resource cost**.
2. An **increase in price of the alternative output cheese** affect milk supply.
3. A positive report on the benefits of milk affect the **taste** for milk.
4. Milk **demand** is affected by a **decrease of 20 million consumers**.
5. **Cookies, a complement of milk**, decrease in price & therefore affect the **demand for milk**.

6. A **technological breakthrough** is discovered by a student who discovers that cows supply more milk if **Enya is singing** during milking.
7. **Milk producers expect milk prices to increase 25%** in two weeks.
8. Due to a deadly cow plague (caused by too much cow belly dancing), **milk availability is expected** to shrink by 60% & impact the current demand for milk.
9. **Subsidies** for milk production are decreased by 20 cents per gallon.
10. The **price of orange juice**, a **substitute** for milk, decreased by **20%**.

5 Demand Shifters

1. Taste - direct
2. Income [normal-direct; inferior-INVERSE
3. Market size (# of consumers–direct
4. Expectations (Consumer) availability-INVERSE

7 Supply Shifters

1. Resource cost [wages/raw materials – INVERSE
2. Alternative output price changes -INVERSE
3. Technology - direct
4. Number of suppliers - direct

1. +S 2. -S 3. +D 4. -D 5. +D

6. +S 7. -S 8. +D 9. -S 10. -D

Review for Demand & Supply

Review For Test 1

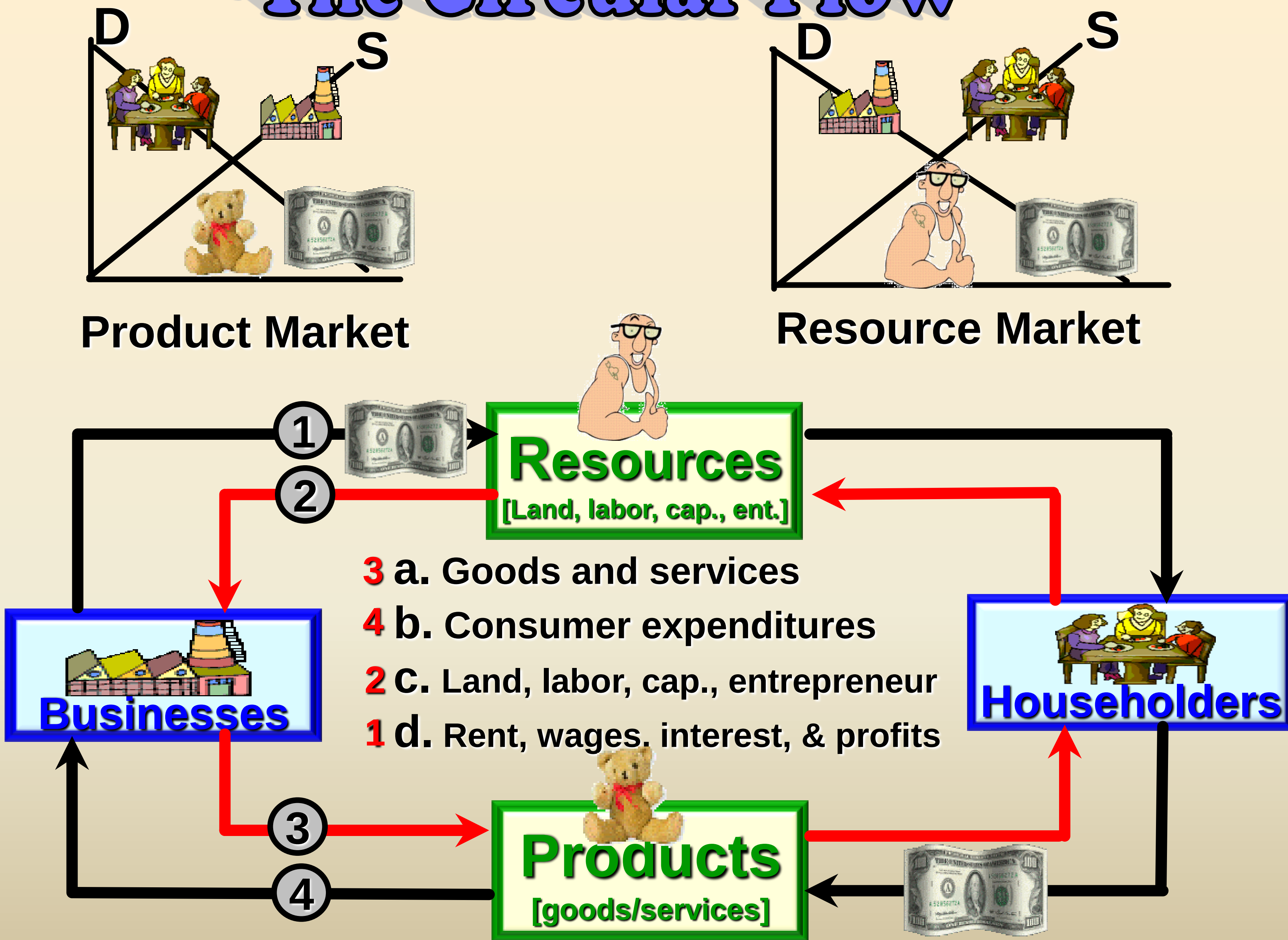
PPF

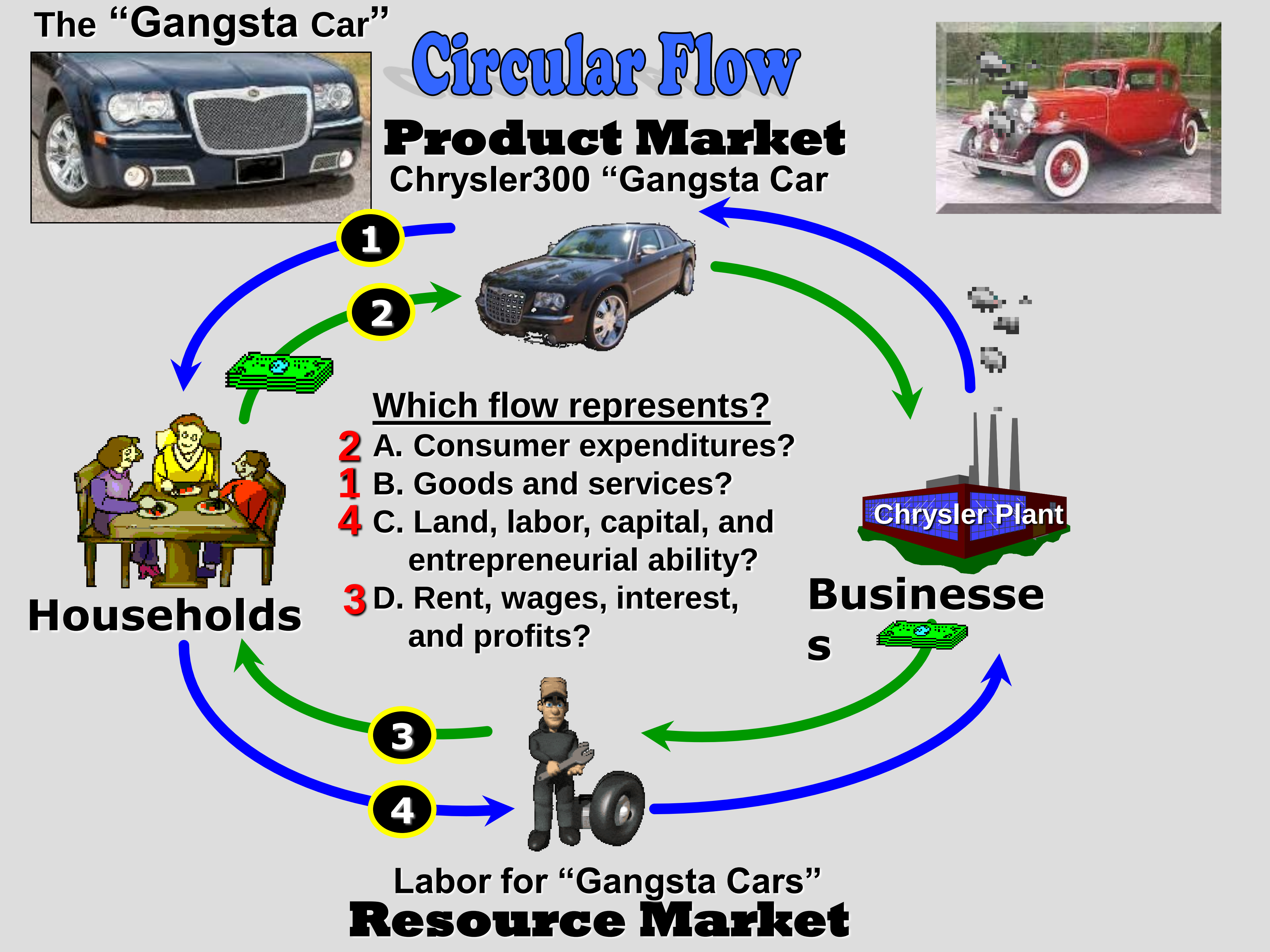
Circular flow

Demand & Supply

QD & D; QS & S

The Circular Flow



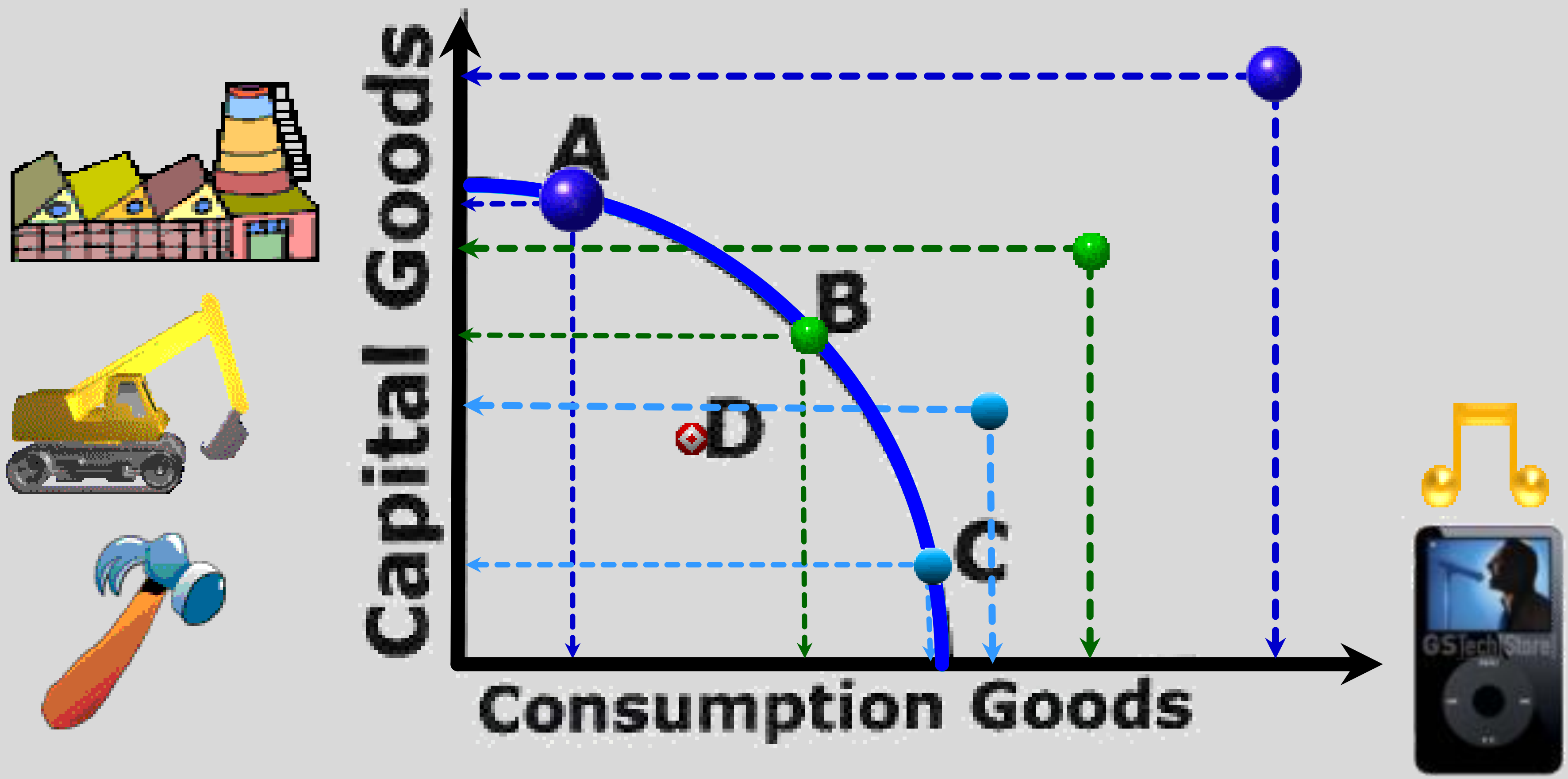

The "Gangsta Car"
Circular Flow
Product Market
Chrysler300 "Gangsta Car
1
2
Which flow represents?
2 A. Consumer expenditures?
1 B. Goods and services?
4 C. Land, labor, capital, and entrepreneurial ability?
3 D. Rent, wages, interest, and profits?
Households
Chrysler Plant
Businesses
3
4
Labor for "Gangsta Cars"
Resource Market

PPC [Economic Growth]

Where a country produces today determines where they can produce tomorrow.

Growth after "Combo C"

After "Combo B"   After "Combo A"

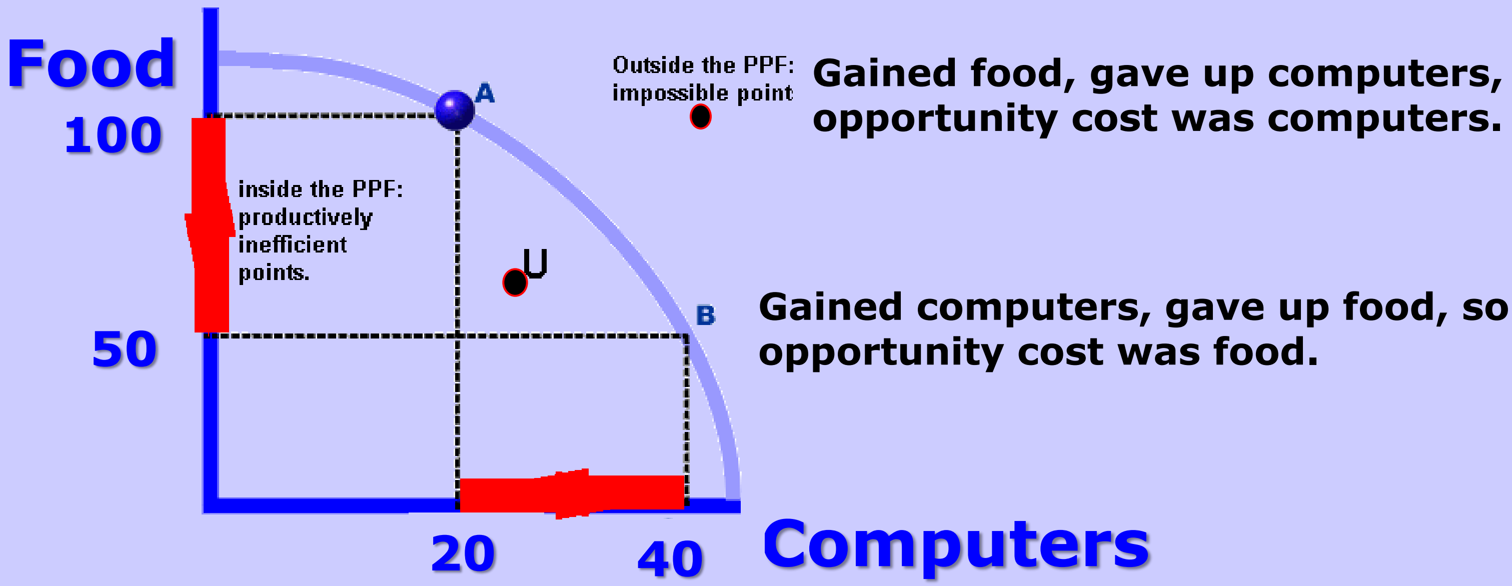


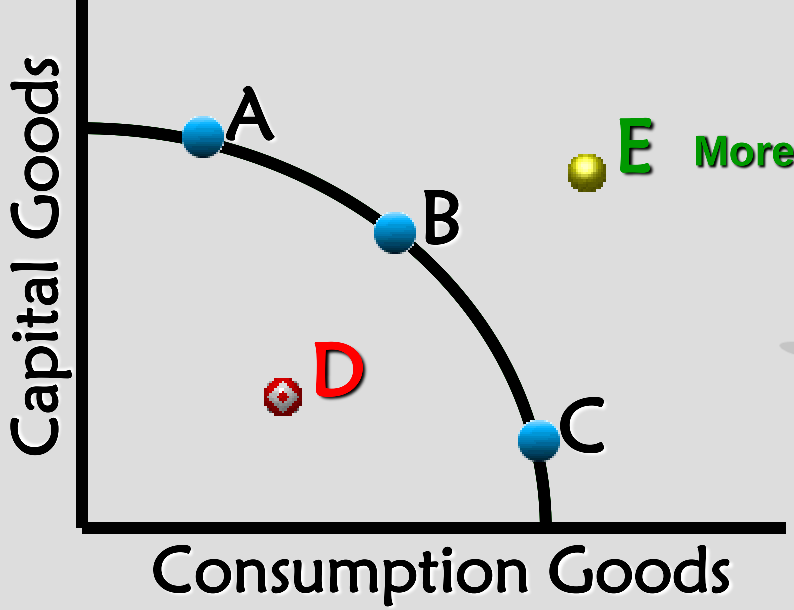
TINSTAAFL

There Is No Such thing As A Free Lunch.

Everything has a cost.

This cost [opportunity cost] is one of the most important concepts of the PPC.





More or better resources or better technology

PPC

41. At what letter is there unemployment [recession]? D
42. What letters represent resources being used in their most productive manner? [full employment, full production, and best available technology] A, B, or C
43. What letter represents an improvement in technology, therefore a new PPC frontier line? E
44. The (straight line/curve) illustrates the "law of increasing cost"?
45. The (straight line/curve) illustrates the "law of constant cost."
46. At what letter would there be the most economic growth in the future if a country were producing there now? A

    What is the opportunity cost when moving from "C" to "B"; Consumption
    when moving from A to C; Capital
    and do we have to give anything up when moving from D to B? no

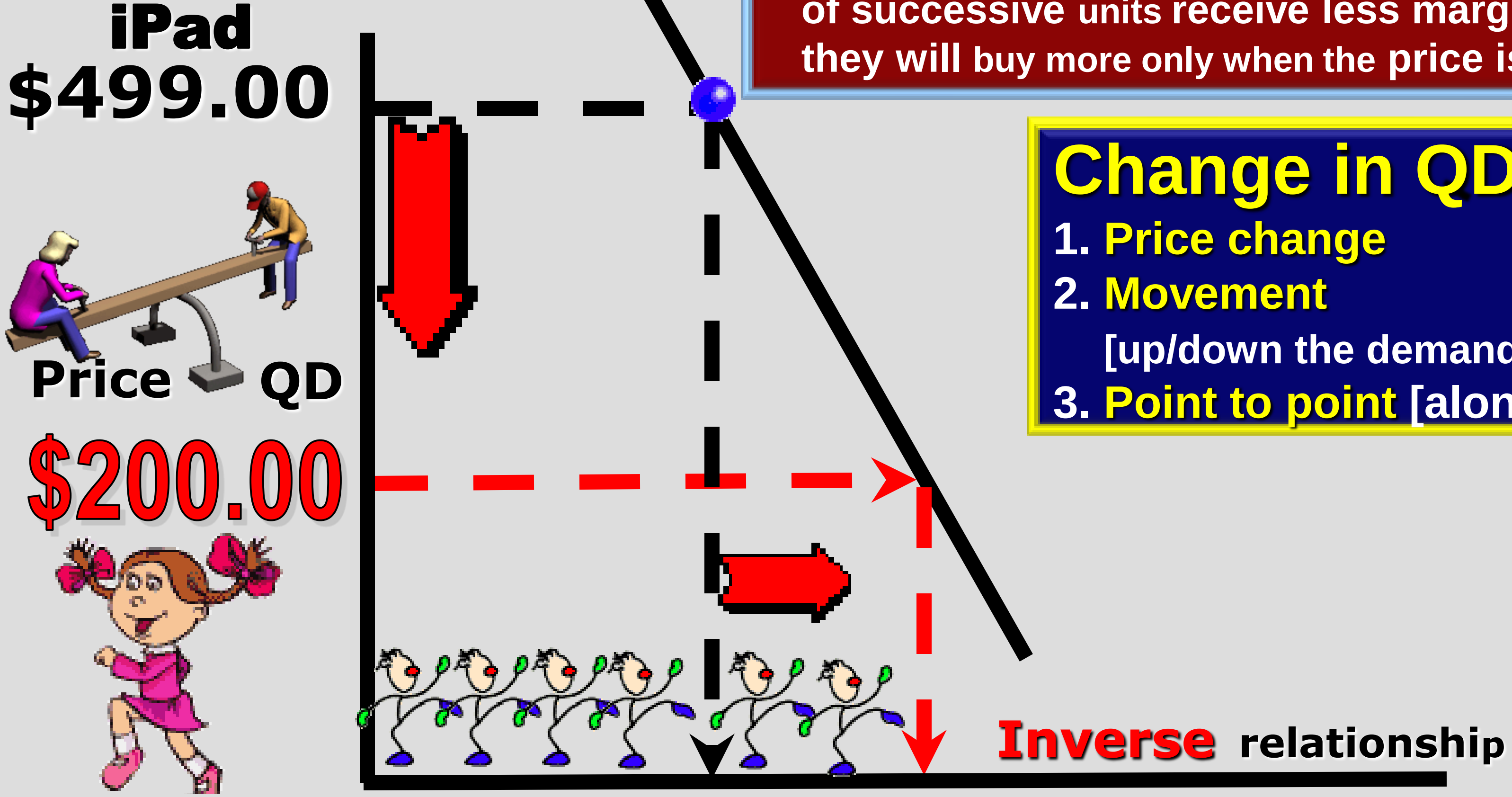
Law of Demand [Change in QD]

Reasons For Downsloping "D" Curve

1. **Income Effect** –current buyers buy more.
2. **Substitution Effect**– new buyers now purchase.
3. **Diminishing Marginal Utility** - because buyers of successive units receive less marginal utility, they will buy more only when the price is lowered.

Change in QD

1. Price change
2. Movement [up/down the demand curve]
3. Point to point [along the curve]

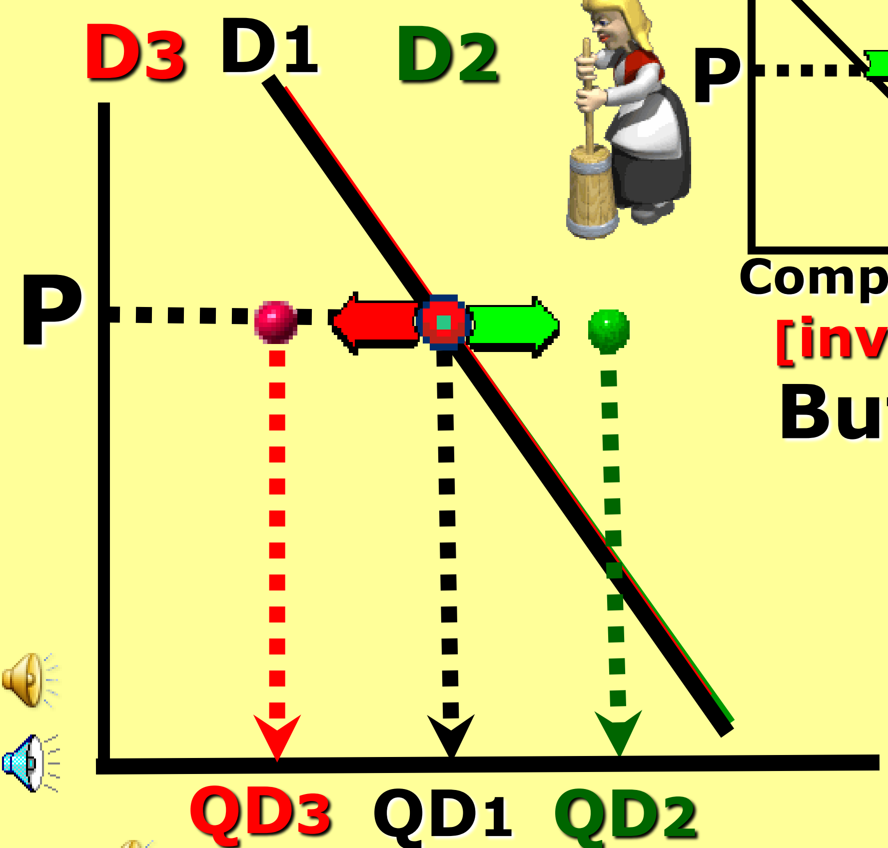


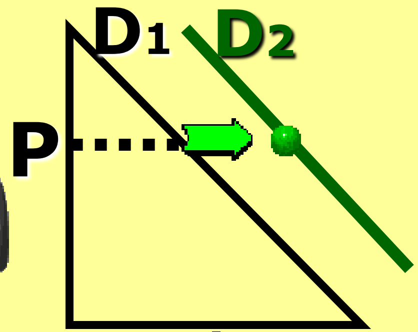
"D" refers to the "whole curve". ["all prices"]

"QD" refers to a "point on the curve" based on a "particular price."

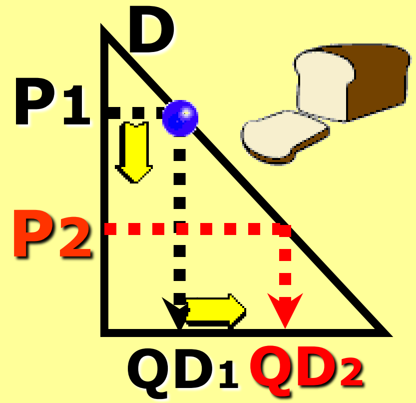
"Demand Shifters" [TIMER]

1. Taste [direct]
2. Income [normal-direct] [inferior-inverse]
3. Market Size [number of consumers-direct]
4. Expectations [of consumers about future *price-direct, about future availability-inverse, or about future income–direct.
5. Related Good *Prices [substitutes-direct] [complements-inverse]

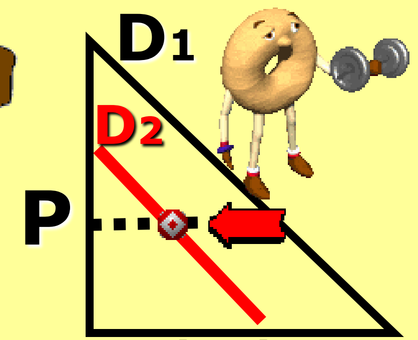




Complement
[inverse]
Butter



Bread



Substitute
[Direct]
Bagels

Change in "D" [curve]

1. Non price change ["TIMER"]
2. Whole "D" curve shifts

[There is a change in "QD" but it is not caused by a change in "price."
[QD-"single price"; D-"all prices"]

Let's Take A Look At The Five Demand Shifters ["TIMER"]

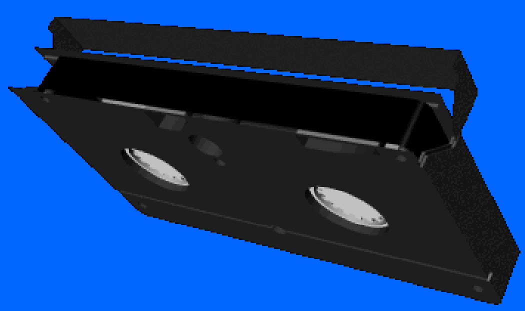
Warning

Concentration on these slides is guaranteed to improve your economics grade.

1."Change in Taste" [Direct]

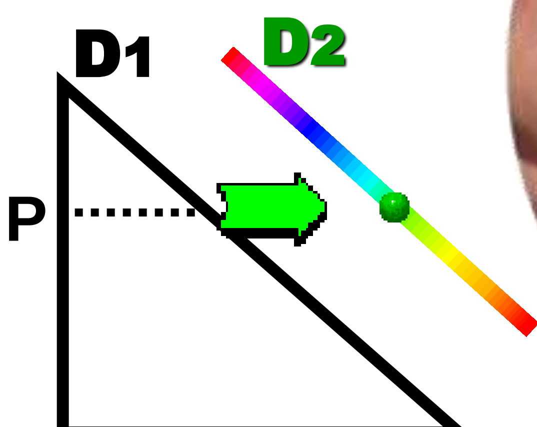
A **decrease in taste** for videos results in a **decrease in demand**.

An **increase in taste** for DVDs results in an **increase in demand**.



Example 1 - "Change in Taste" for Dark Chocolate

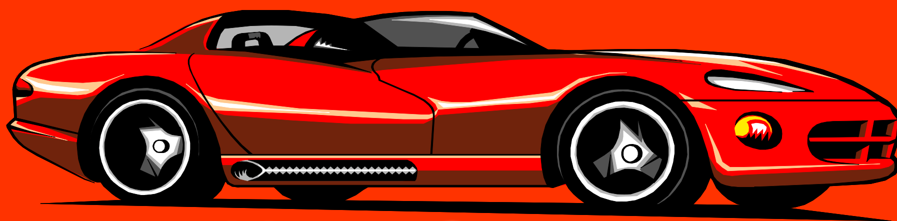
Increase in demand for **dark chocolate** after studies revealed that there were **health benefits** from eating it. Scientists say that by eating 6 grams [less than 2 Hershey's kisses] of **dark chocolate** decrease the chances of strokes & heart attacks by 1/3. The flavanols in cocoa make the blood vessels more elastic & **less stiff**, resulting in **less hardening of the arteries** and a **lowered risk of blood clots**.



Dark Chocolate: Half A Bar Per Week May Keep Heart Attack Risk At Bay.

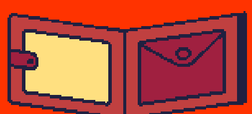
2. Change in Income

[Normal-Direct; Inferior-Inverse]

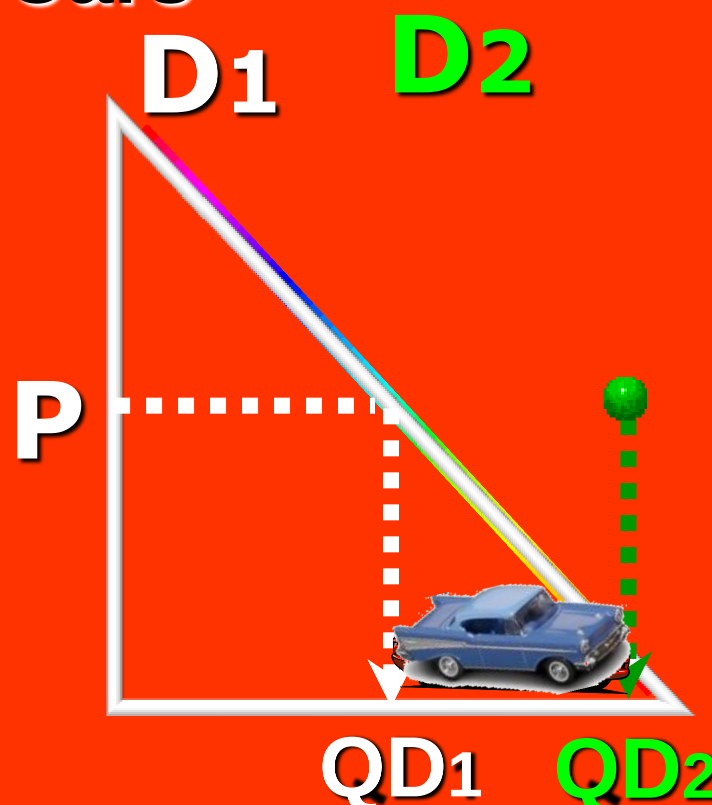


New Cars

Used Cars



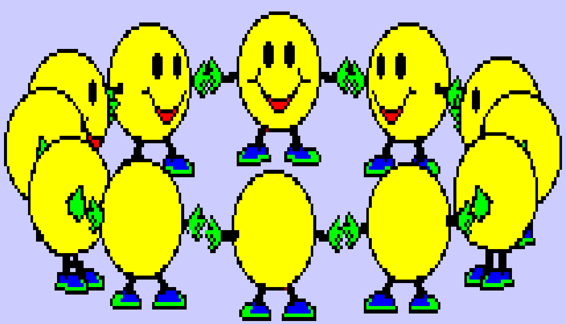
More income results in more demand for new cars; less demand for used cars.

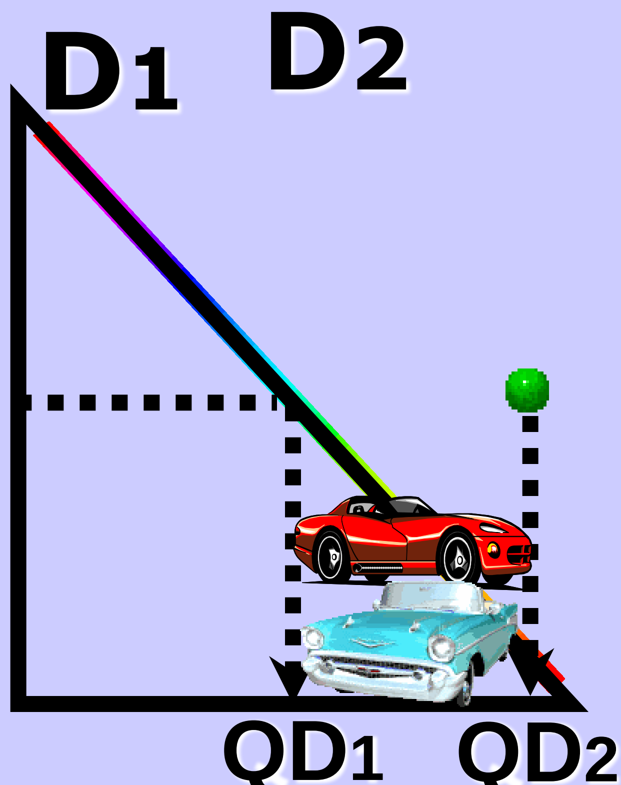


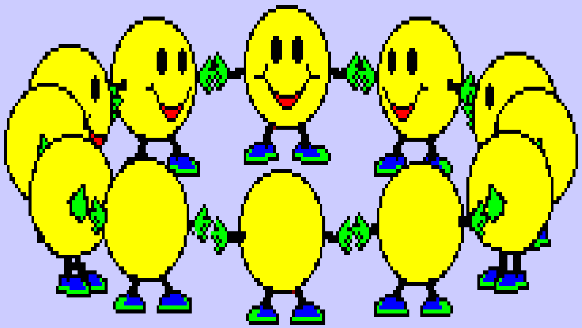
Less income results in more demand for used cars; less demand for new cars.

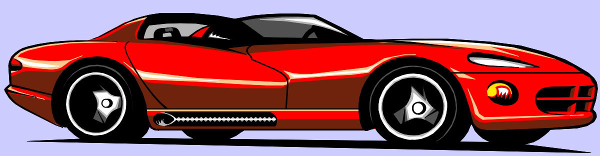
3. Change in Market Size [Direct]
[Number of Consumers]

This is what we told **one billion Chinese**, as **new potential consumers**, when we opened **trade relations** with them in **1972**.





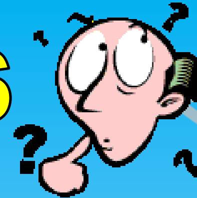




New Cars

Used Cars

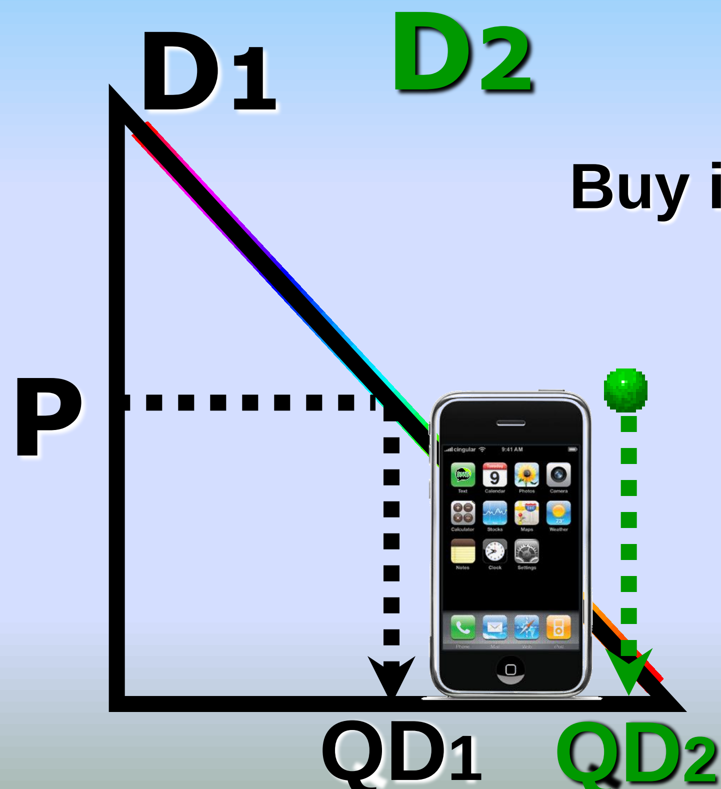
More demand for both normal & inferior goods

4. Expectations  [of Consumers]

[about future price, availability, & income]

$199

If the **iPhone 4** at $199, is expected to increase In price to $399 in 3 weeks, consumers will…

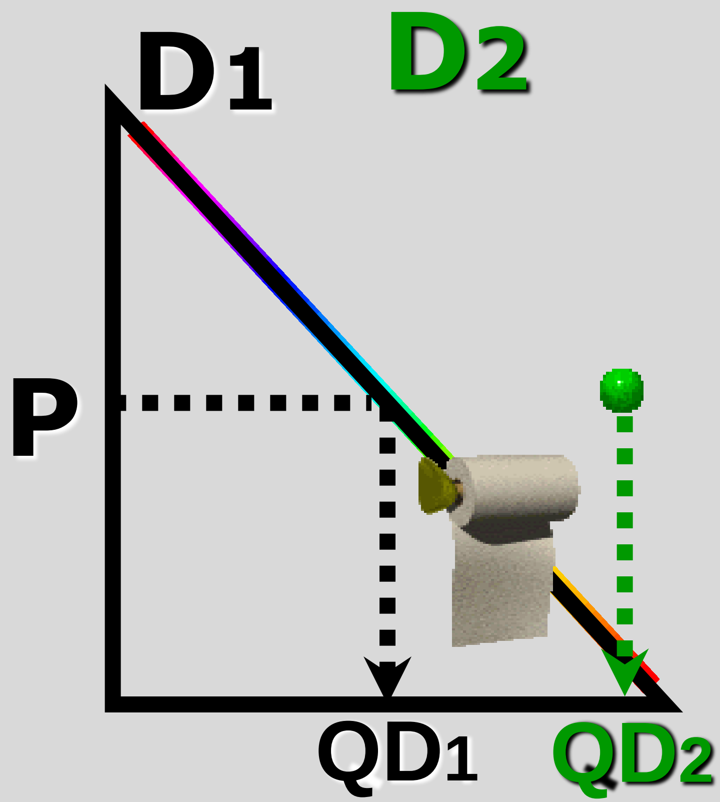


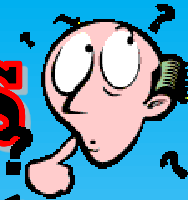
Buy it now to save money.

4. Expectations  [of consumers]

[about future availability of toilet tissue]

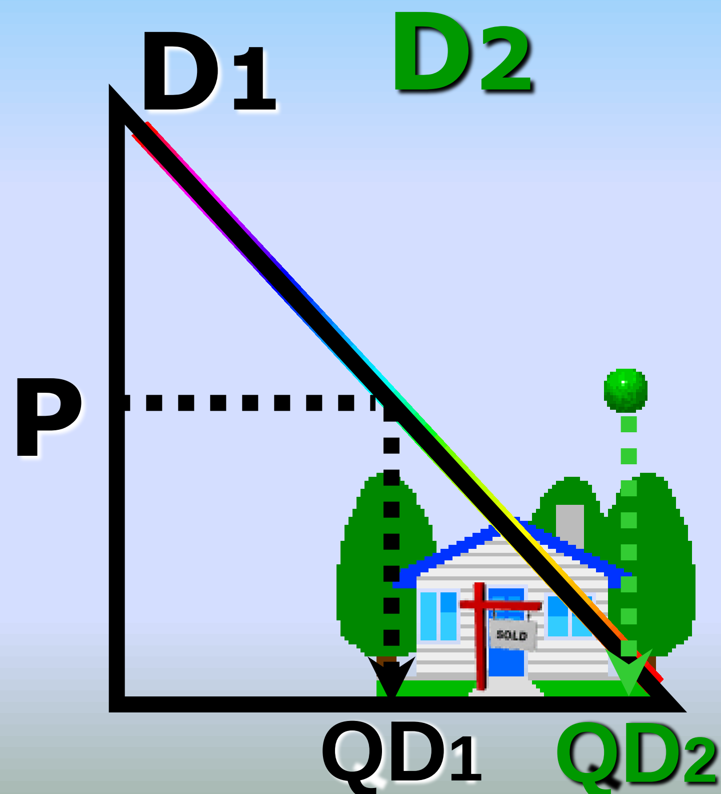
If there is expected to be a **major shortage of toilet tissue**, then consumers will stock up now or risk not getting any.



4. Expectations  [of consumers]

[about future income]

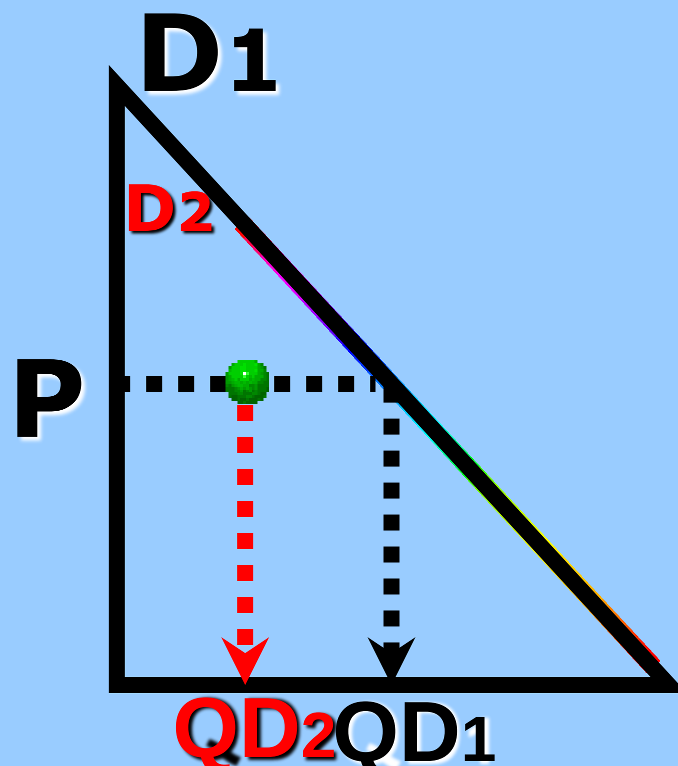
Let's say that we are **coming out of recession** & consumers feel secure about their jobs. [**Positive future income**]



4. Expectations  [of consumers]

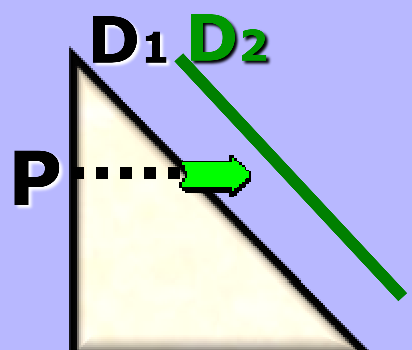
[about future income]

Let's say that we are **going into a recession** and consumers don't feel secure about their jobs. [**Negative future income**]

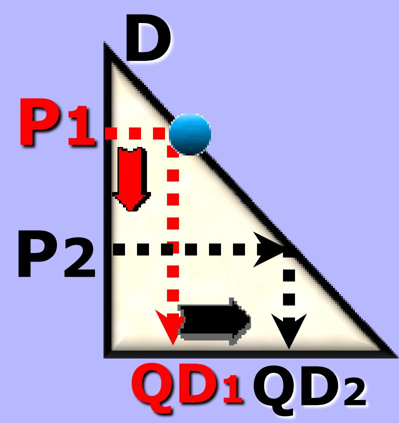


5. Prices of Related Goods

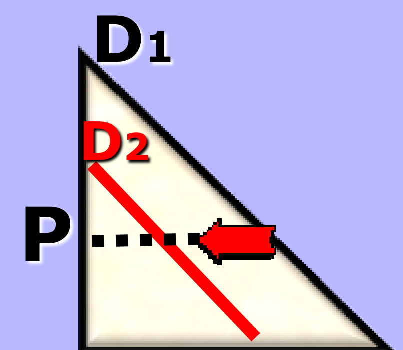
[Substitutes-Direct; Complements-Inverse]



Complement
[**Inverse**]
Milk



Cereal

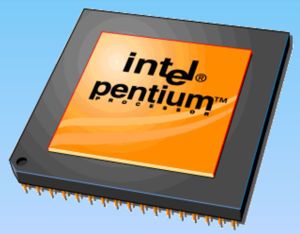


Substitute
[**Direct**]
Pop Tarts

Now, Let's Take A Look At The Seven Supply Shifters ["RATNEST"]

1.Resource Cost [wages & raw materials] [Inverse]

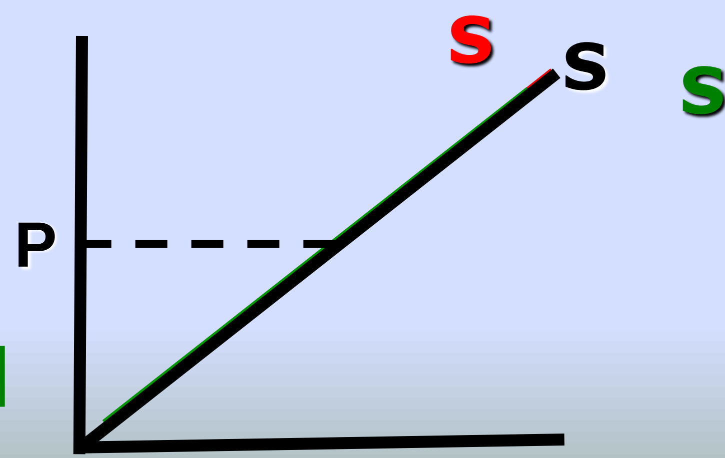
Wages



Raw Materials

Intel Pentium Chip

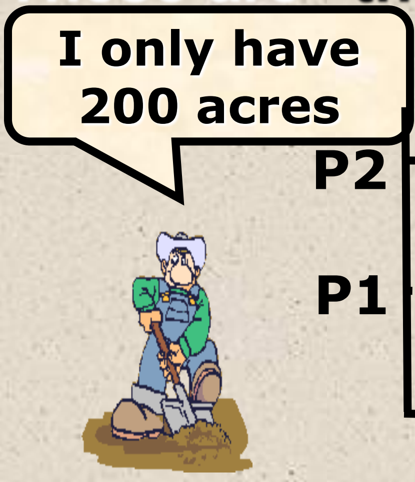
If resource cost **decreases** supply **Increases** [making more $]

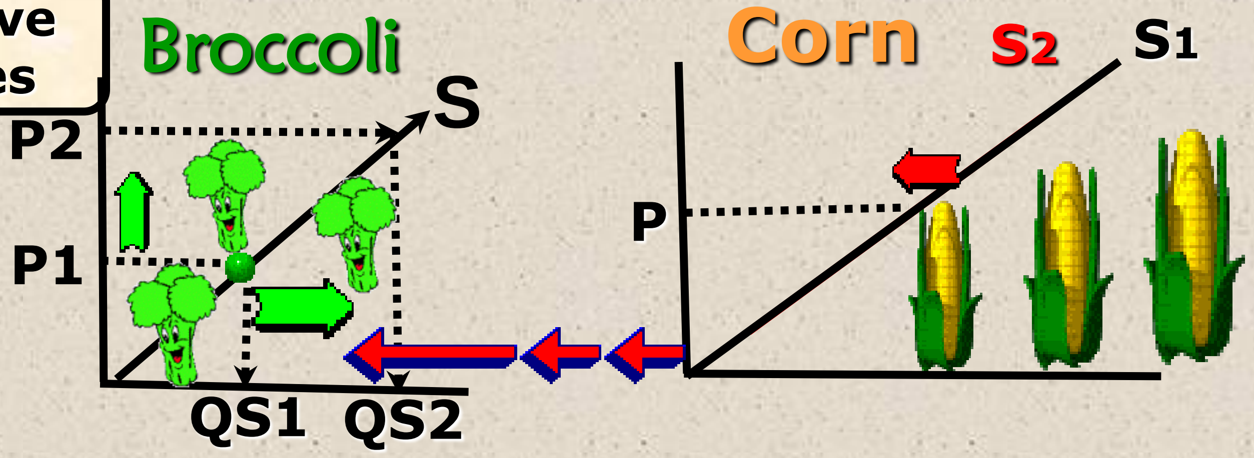


If resource cost **increases** supply **Decreases** [making less $]

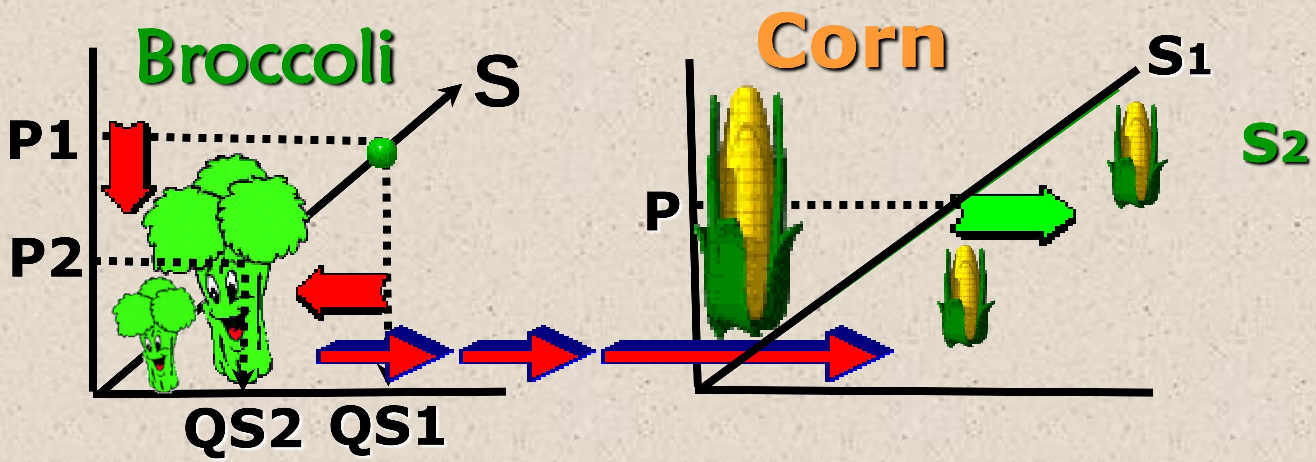
2. Alternative Output Price Change [Inverse]

These are **"things that can be supplied with the same resources".**





Producers want to produce more of the good where price is increasing,



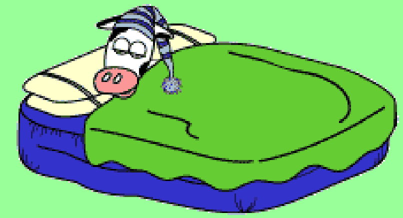
or at least, where the price is not going down.

"Substitutes in production"

3. Technological Improvement

[Cow Waterbeds]

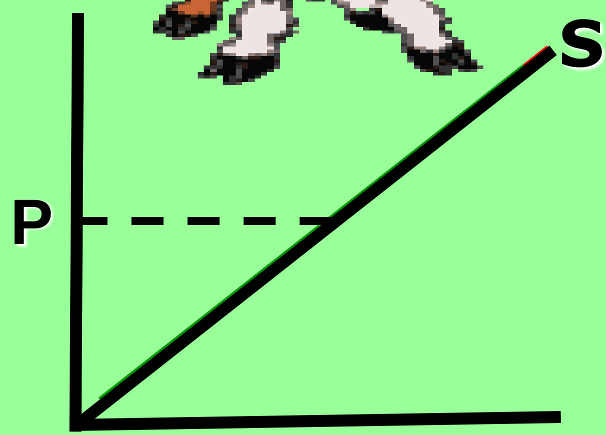
Waterbedsforcows.com



We love these cow waterbeds because we get **better blood flow** and can **produce 30% more milk**.

Less skin abrasions so happier cows produce more milk.

Because cows produce more milk, farmers don't have to have as many cows.[saves $]



S

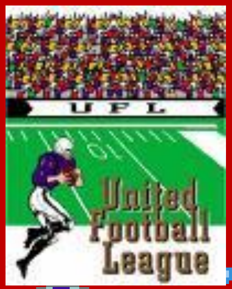
Supply curve moves "udderly" to the right.

Mooooove over and give me that waterbed.

4. Number of Suppliers [Direct]

The **NFL**
was joined by…

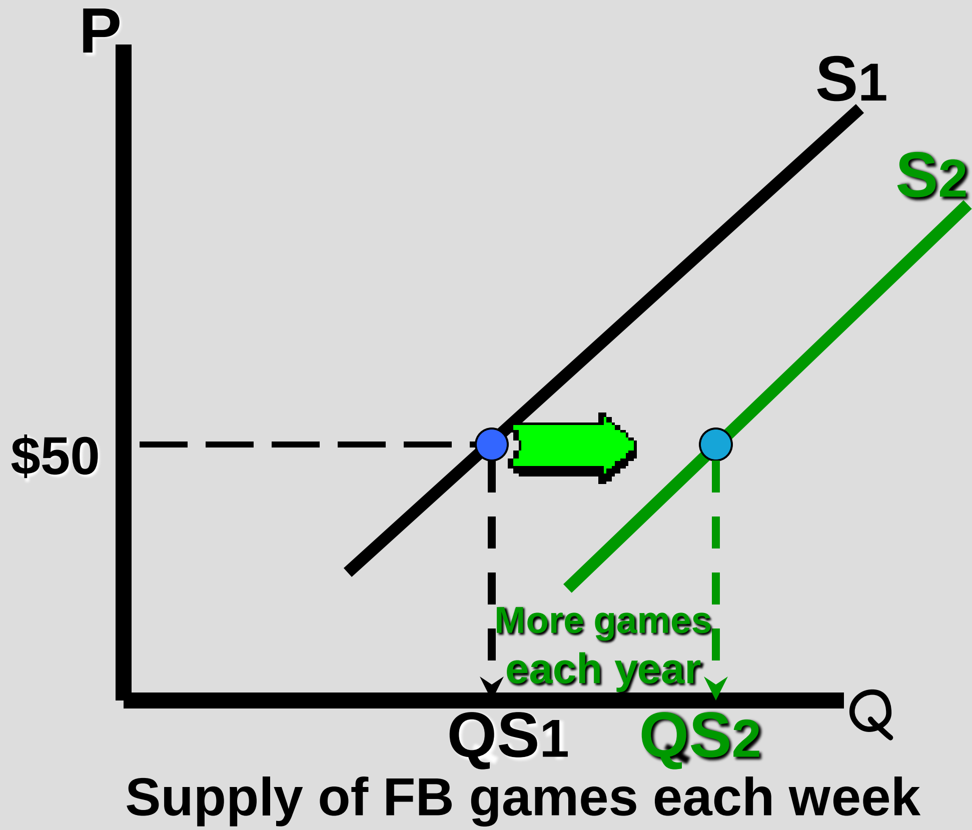
UFL started in 2009



5 Teams on HD Net

The **UFL** has teams
in these 5 cities.
1.*Las Vegas Locos
2. NY Sentinels
3. Florida Tuskers
4. Sacramento Mountain Lions
5. Hartford Colonials
*Champs for 2009

There is going to be a new USFL in 2011 with 10-12 teams.

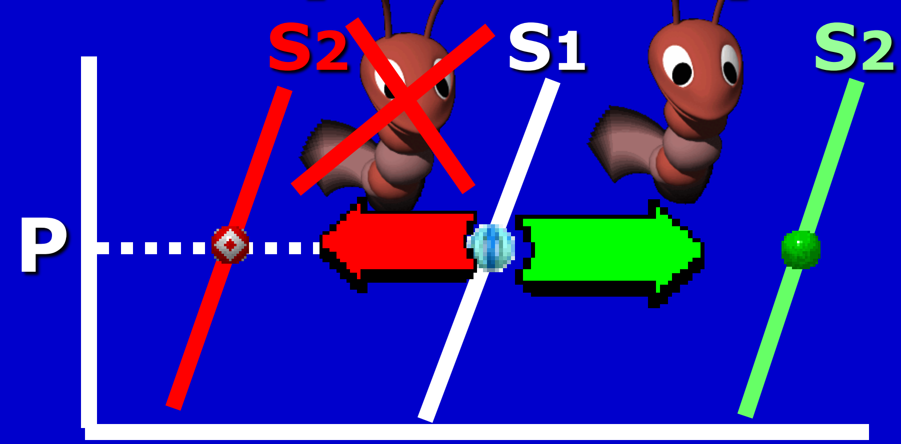


UFL [United Football League]

Supply of FB games increased when the UFL was formed.

5. Producer Expectations about Future Price

[“INVERSE”]

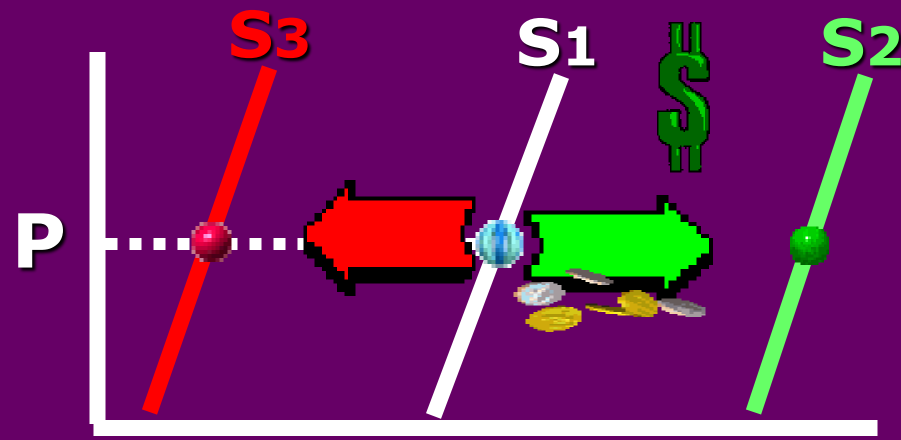


If the **Bubba Gump Shrimp Company** expects **shrimp prices to decrease more** in the future, they will supply (<u>more</u>/less) shrimp to the market now.

If the **Bubba Gump Shrimp Company** expects **shrimp prices to increase more** in the future, they will supply (more/<u>less</u>) shrimp to the market now.

6. Subsidies - free money from government

[Direct]

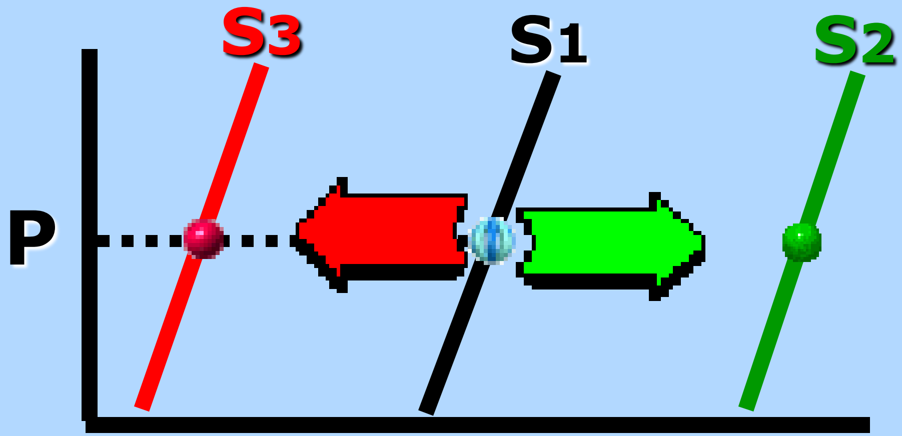


Free money from the government (subsidies) induces suppliers to supply more.

If subsidies are taken away, then suppliers are losing money and will decrease supply.

7. Taxes Take Away Business Profits & Decrease Supply.

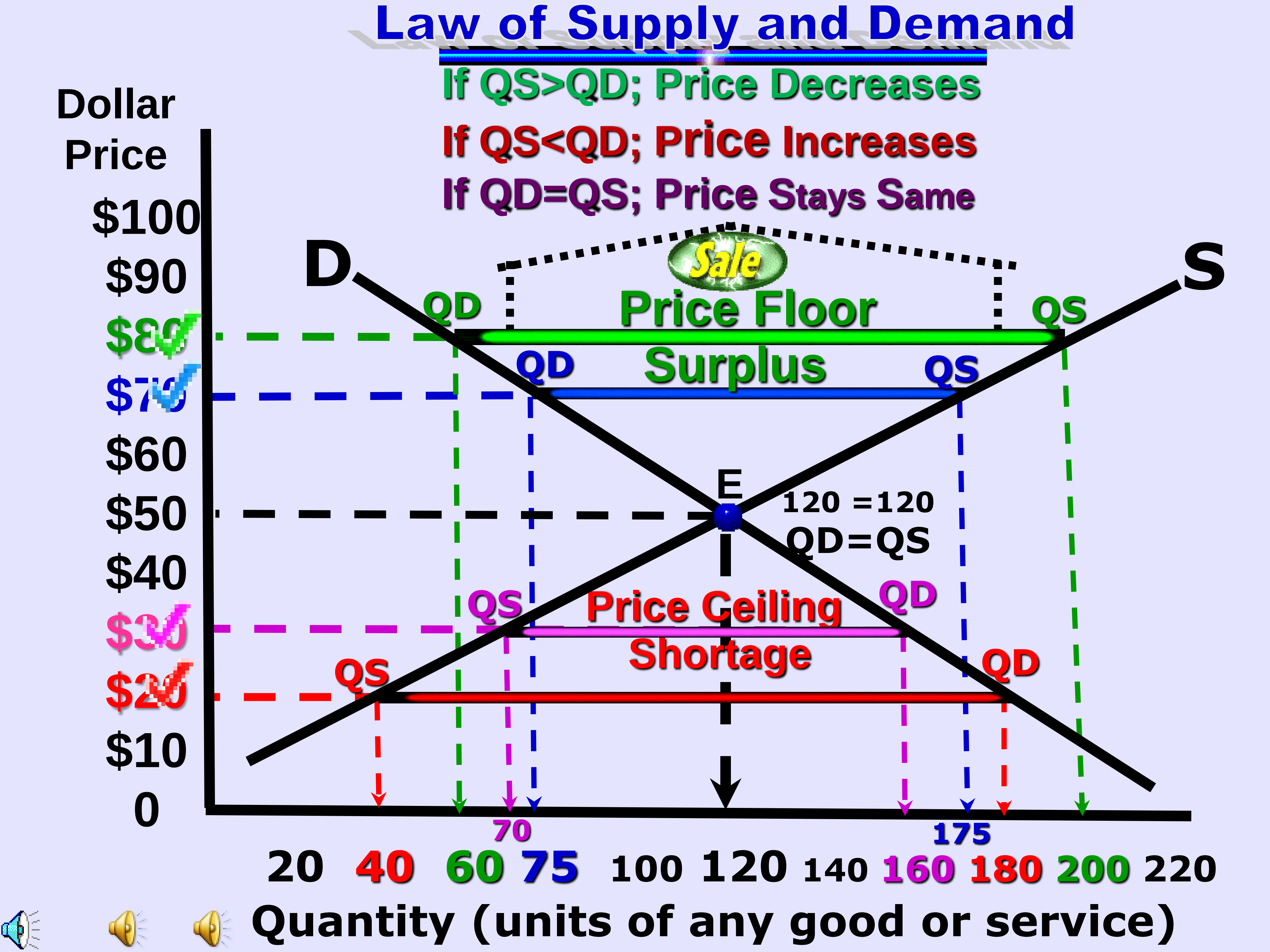
[Inverse]



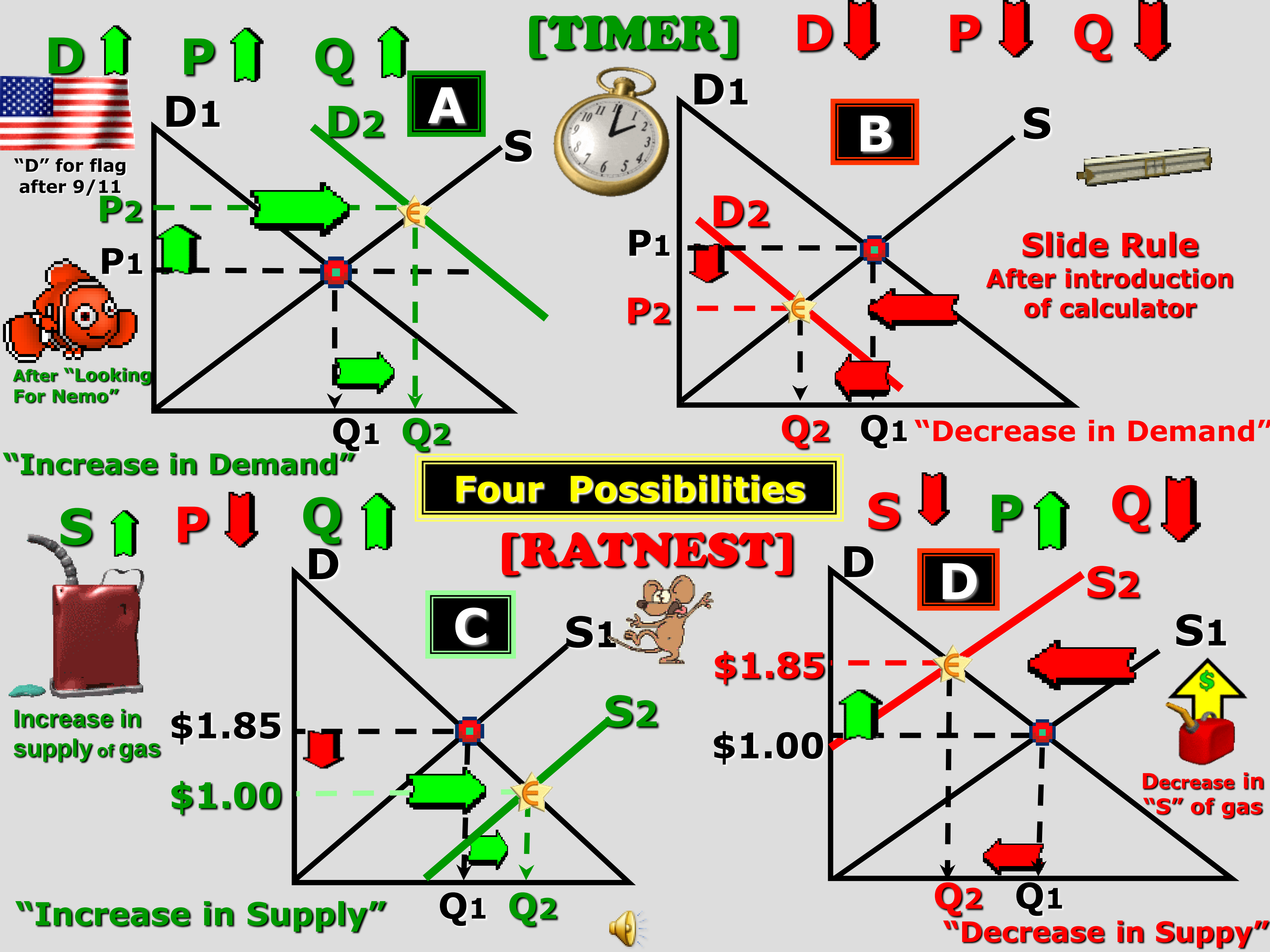
If business have their taxes decreased, it moves the supply curve to the right.

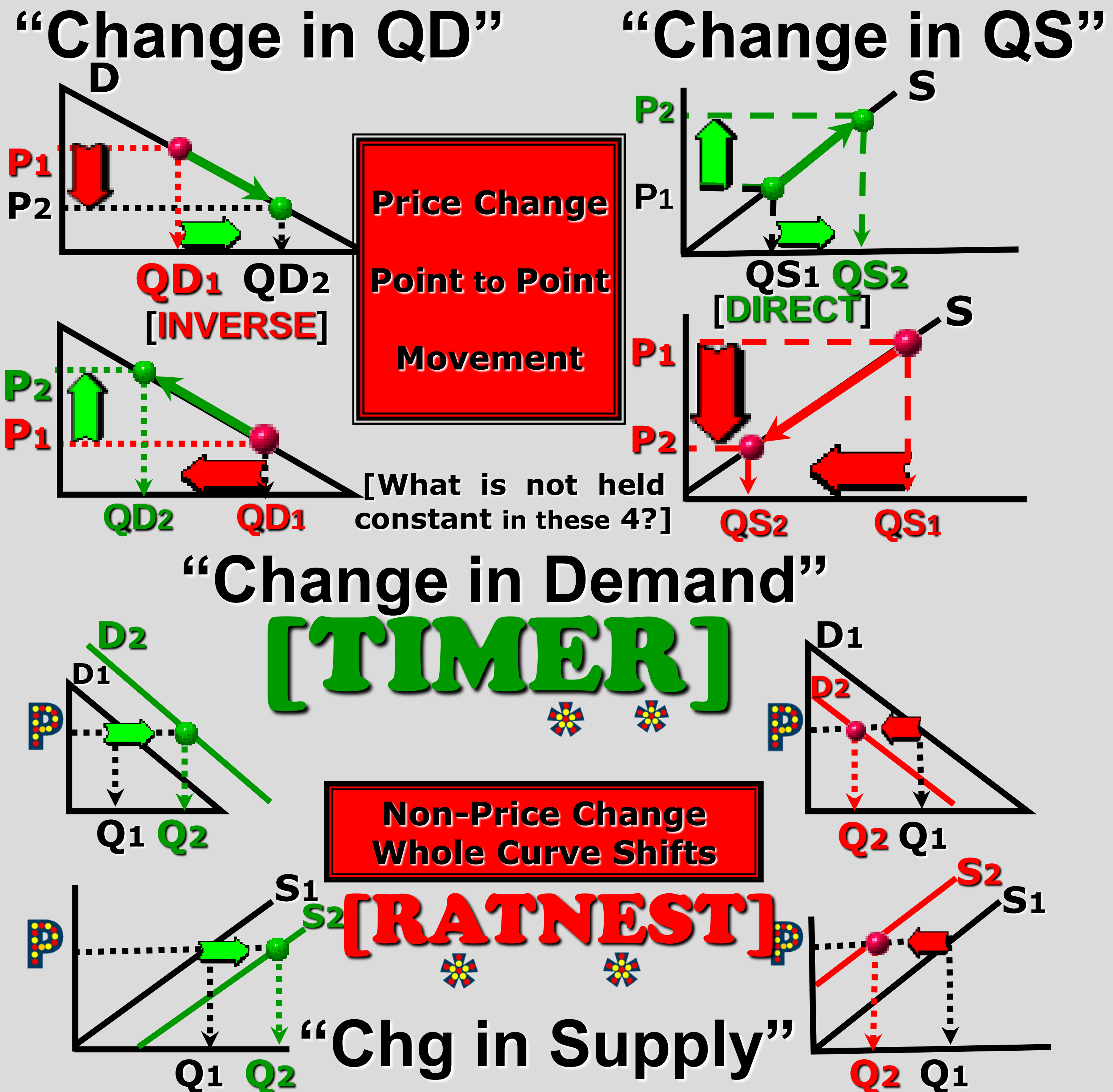
If business have their taxes increased, it moves the supply curve to the left.


Price Floor [Minimum Price]
In Economics, Floors Are Above Ceilings
Price Ceiling [Maximum Price]



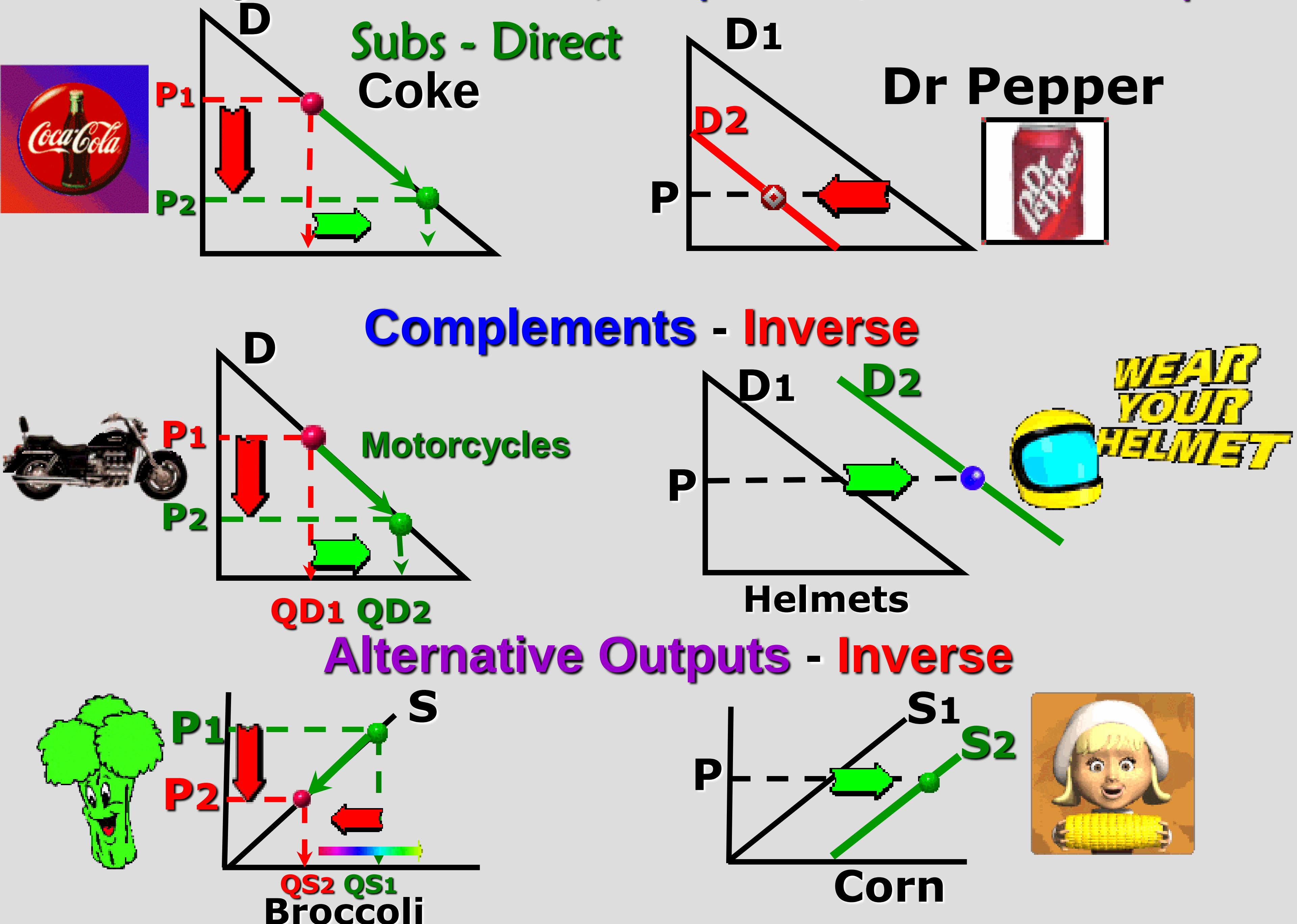
Law of Supply and Demand
If QS>QD; Price Decreases
If QS<QD; Price Increases
If QD=QS; Price Stays Same
Dollar Price
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
0
D
S
Sale
QD
Price Floor
QS
QD
Surplus
QS
E
120 =120
QD=QS
QS
Price Ceiling
QD
Shortage
QS
QD
70
175
20 40 60 75 100 120 140 160 180 200 220
Quantity (units of any good or service)


Four Possibilities
D P Q
A
D1
D2
S
P2
P1
Q1 Q2
"D" for flag after 9/11
After "Looking For Nemo"
"Increase in Demand"
[TIMER]
D P Q
B
D1
S
D2
P1
P2
Q2 Q1
Slide Rule
After introduction of calculator
"Decrease in Demand"
S P Q
C
D
S1
S2
$1.85
$1.00
Q1 Q2
Increase in supply of gas
"Increase in Supply"
[RATNEST]
S P Q
D
D
S2
S1
$1.85
$1.00
Q2 Q1
$
Decrease in "S" of gas
"Decrease in Suppy"

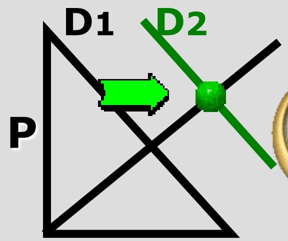


"Change in QD"
"Change in QS"
D
P1
P2
QD1 QD2
[INVERSE]
P2
P1
QD2 QD1
S
P2
P1
QS1 QS2
[DIRECT]
S
P1
P2
QS2 QS1
Price Change
Point to Point
Movement
[What is not held constant in these 4?]
"Change in Demand"
[TIMER]
D2
D1
P
Q1 Q2
D1
D2
P
Q2 Q1
Non-Price Change
Whole Curve Shifts
S1
S2
P
Q1 Q2
[RATNEST]
S2
S1
P
Q2 Q1
"Chg in Supply"

Price Changes for Substitutes, Complements, & Alternative Outputs

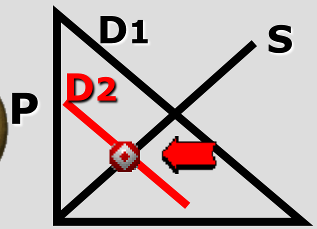


"Increase in D" "Decrease in D" "Increase in S" "Decrease in S"

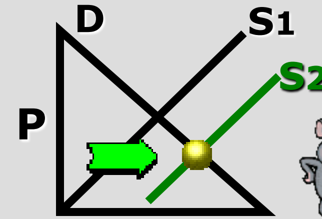


(A)

TIMER

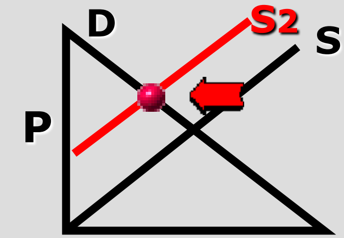


(B)



(C)

RATNEST



(D)

__A__1. Decrease in the price of printers on the market for cartridges.

__D__2. Increase in worker wages on the market for computers.

__A__3. Increase in the price Dr. Pepper on the market for Coke.

__D__4. Increase in the price of computer chips on the computer market.

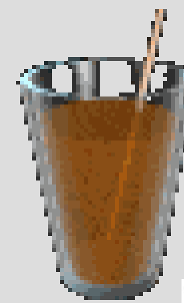
__C__5. Decrease in price of fertilizer on the market for wheat.

__C__6. Increase in government subsidies on the market for AIDS research.

__A__7. Decrease in incomes on the market for used clothing.

__C__8. New professional hockey league is formed upon the market for hockey games.

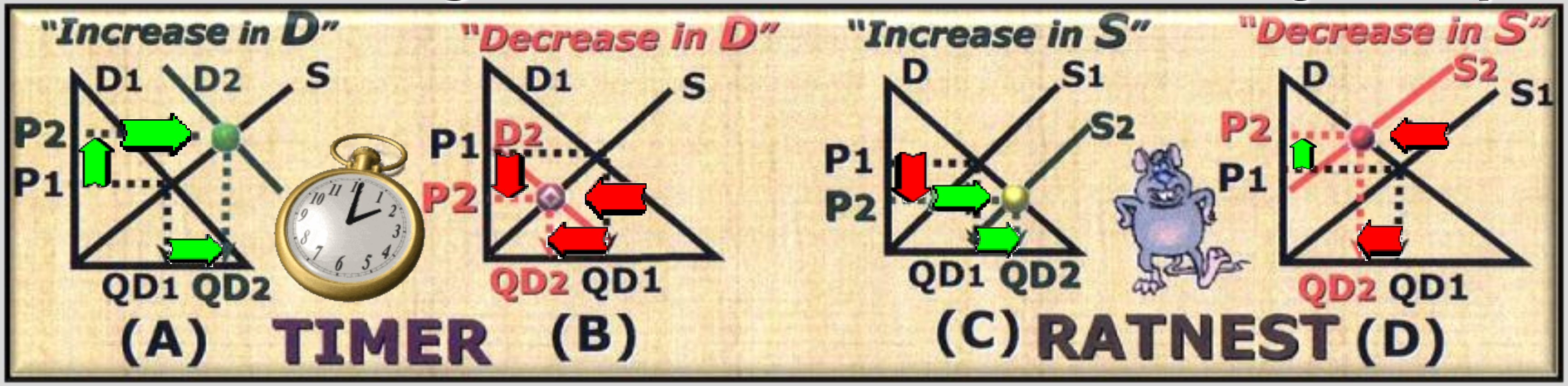
__C__9. Producer expectations that the price of orange juice will decrease 30% in 3 weeks?



__B__10. Consumer expectations that the price of orange juice will decrease 30% in 3 weeks?

__A__11. Decrease in price of iPads upon market for iPad apps?

Effect of Changes in "D" or "S" on Price and Quantity



1. **A decrease in income if spam is an inferior good would:**

a. increase D, increase P, & increase Q.
b. increase D, increase P, & decrease Q.
c. increase S, increase P, & increase Q.
d. decrease D, increase P, & increase Q.

2. **An increase in the price of resources used to produce DVD Players will:**

a. increase S, increase P, & increase Q.
b. increase D, increase P, & increase Q.
c. decrease S, decrease P, & decrease Q.
d. decrease S, increase P, & decrease Q.

3. **Decrease in price of butter on the market for the substitute margarine:**

a. increase D, increase P, & decrease Q.
b. decrease D, decrease P, & increase Q.
c. decrease D, increase P, & decrease Q.
d. do none of the above

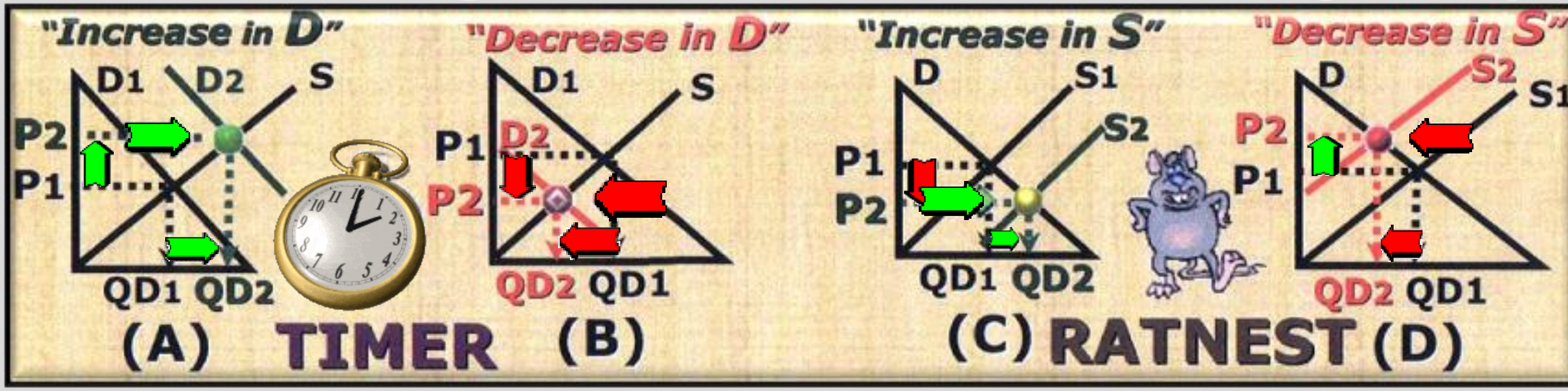
4. **An improvement in technology used to produce DVDs will:**

a. decrease S, increase P, & decrease Q.
b. decrease S, increase P, & increase Q.
c. increase S, decrease P, & increase Q.
d. decrease D, decrease P, & decrease Q.

5. **An increase in the number of consumers for iFuzzy iWuzzies:**

a. decrease S, decrease P, & decrease Q.
b. increase D, increase P, & increase Q.
c. decrease D, decrease P, & decrease Q.
d. decrease D, decrease P, & increase Q.

Effect of Changes in "D" or "S" on Price and Quantity



6. **An increase in taste for iFuzzy iWuzzies would:**
   - a. increase D, increase P, & increase Q.
   - b. decrease D, increase P, & decrease Q.
   - c. increase S, increase P, & increase Q.
   - d. decrease D, decrease P, & decrease Q.

7. **A reduction in the number of firms producing laptops:**
   - a. increase S, increase P, & increase Q.
   - b. increase D, increase P, & increase Q.
   - c. decrease S, increase P, & decrease Q.
   - d. decrease S, decrease P, decrease Q.

8. A decrease in the price of **pancakes**, a **complement** for **syrup** would:
   - a. increase D, increase P, & decrease Q.
   - b. decrease D, decrease P, & increase Q.
   - c. Increase D, increase P, & increase Q.
   - d. do none of the above

9. **An increase in income upon the market for used cars would:**
   - a. decrease S, increase P, & decrease Q.
   - b. decrease S, increase P, & increase Q.
   - c. increase D, decrease P, & increase Q.
   - d. decrease D, decrease P, & decrease Q.

10. **Consumer expectations that the price of iPhones will increase by 50% in the future will:**
    - a. decrease S, decrease P, & decrease Q.
    - b. increase D, increase P, & increase Q.
    - c. decrease D, decrease P, & decrease Q.
    - d. decrease D, decrease P, & increase Q.

[D – "TIMER"; QD – price change of product (inverse)]

B___1. Which of the following will cause a **"Decrease in Demand"** **for Seven jeans?**

a. decrease in price of Seven jeans b. decrease in income c. increase in income d. increase in price of Sevens

D___2. Which of the following will cause a **"Decrease in QD"** **for Seven jeans?**

a. decrease in price of Seven jeans b. decrease in income c. increase in income d. increase in price of Sevens

C___3. Which of the following will cause an **"Increase in Demand"** **for Seven jeans?**

a. increase in price of Seven jeans b. decrease in price of Seven jeans c. increase in # of consumers

B___4. Which of the following will cause an **"Increase in QD"** **for Seven jeans?**

a. increase in price of Seven jeans b. decrease in price of Seven jeans c. decrease in # of consumers(marketsize)

[S – "RATNEST"; QS – price change of product (direct)]

5. Which of the following will cause a **"Decrease in Supply"** for the **iPad?**

a. decrease in price of the iPad c. decrease in resource cost for the iPad

b. increase in price of the iPad d. expectations of price increase for the iPad

6. Which of the following will cause a **"Decrease in QS"** for the **iPad**?

a. decrease in price of the iPad c. decrease in resource price of the iPad

b. increase in price of the iPad d. expectations of price increase for the iPad

7. Which of the following will cause an **"Increase in Supply"** for the **iPad**?

a. increase in price of the iPad c. subsidies to suppliers of the iPad

b. decrease in price of the iPad d. expectations of price increase for the iPad

8. Which of the following will cause an **"Increase in QS"** for the **iPad?**

a. increase in price of the iPad c. subsidies to suppliers of the iPad

b. decrease in price of the iPad d. expectation of an iPad price increase

Practice "Supply Quiz"

1. Which would cause a **"decrease in supply" for MP3 Players**?
   a. decrease in the price of MP3s b. increase in the price of MP3s
   c. decrease in MP3 resource cost d. producer expectations of a price increase
2. Which would cause a **"decrease in QS" for MP3 Players**?
   a. decrease in the price of MP3s b. increase in the price of MP3s
   c. decrease in MP3 resource cost d. producer expectations of a price increase
3. Which would cause an **"increase in supply" for MP3 Players**?
   a. decrease in the price of MP3 Players b. increase in the price of MP3s
   c. decrease in MP3 resource cost d. producer expectations of a price increase
4. Which would cause an **"increase in QS"** for **MP3 Players**?
   a. decrease in price of MP3s b. increase in price of MP3s
   c. decrease in MP3 resource cost d. producer expectations of a price increase
5. An increase in the price of **asparagus** will (increase/decrease) the supply of the **alternative output peas.**
6. A 50% decrease in the price of **"computer chips"** will (increase/decrease) the (supply/QS) for **"computers".**
7. Which would cause an **"increase in supply" for MP3 Players?**
   a. increase in wages for MP3 Player workers.
   b. subsidies($100 per computer) are given to MP3 Player companies.
   c. subsidies for MP3 Player makers being taken away.


THE END