

# Manitoba Monday, Sept. 12 | Toronto Tuesday, Sept. 13

Warm up: TTYN about your weekend and how your first five weeks of school have gone.

*Learning target: I can explain the law of demand. I can explain (using graphs) the relationship between the price of a good or service and the quantity demanded. I can predict changes in price and quantity demanded based on changes in a market.*

Agenda: Trade/grade Fun Set 1.3. Elbow-bump market game.

**HW1-d posted--get started early! It's long (but easy)**

two types of people going back to school:



# Trade & Grade Fun Set 1.3

Take your pick:

1. Work in a small group with Ms. Brown to go over Fun Set
2. Trade & grade using AP rubrics



**Weeks to produce one**

	<b>Car</b>	<b>Plane</b>
<b>Canada</b>	2	10
<b>Japan</b>	15	5

Hours to produce 1 unit		
	Campaign Commercial	Speech
Kamala	8	2
Hillary	3	9

# THE ELBOW-BUMP MARKET

1. What is a market?
2. Objectives:
  - Identify how prices are determined in a market
  - Predict the results of changes in a market
  - Experience the effects of price ceilings and taxes
  - Apply effective negotiation skills
3. Buyers:
  - Blue cards only--shows your max price you can pay
  - Pay lowest price possible
  - Buy as many elbow-bumps as you can in each round
4. Sellers:
  - Red cards only--shows your min price you can sell
  - Sell for highest price possible
  - Sell as many elbow-bumps as possible
  - Tell Ms. Brown transaction price only



# WHEELBARROW WEDNESDAY, SEPT. 14 | THRASHER THURSDAY, SEPT. 15

Warm up: TTYN re. the Elbow-bump market--what questions do you have?


- *Learning targets (same as last class): I can explain the law of demand. I can explain (using graphs) the relationship between the price of a good or service and the quantity demanded. I can predict changes in price and quantity demanded based on changes in a market.*
- Agenda: Finish elbow-bump market; notes on law of demand.
- **HW1-d posted--get started early! It's long (but easy)**
- **AP Classroom videos + practice questions posted**
- **Unit 1 test Monday, 9/26 and Tuesday, 9/27**





## THE ELBOW BUMP MARKET

# RULES

1. Randomly pick only one card at a time
  2. You must pick a different card after each transaction; put your old card face down on desk
  3. Buy and sell from different people. You can't buy or sell from same person more than two times in any round
  4. If you want a new card without buying or selling, you must leave the market
    - a. To leave the market: Sit in a chair by the door for 20 seconds and then hit the “leave the market” sign by the door.
    - b. Because you had no transaction, write “LTM” (for “left the market”) on your scoresheet.
- 



# SCORE

- Your goal is to have the highest score at the end of all four rounds.
- Keep track of your personal score on the score sheet. **We will do the math at the end of each round—only record prices during the round.**
  - Buyer example: If your card is a 7 and you negotiate a price of 5, then your score for that transaction is 2
  - Seller example: If your card is a 4 and you negotiate a price of 5, then your score for that transaction is 1
  - If the transaction price is equal to the price of your card, then your score is zero
- Note: You don't have to buy or sell for a loss. If you can't buy or sell, leave the market and get a new card.

Name: \_\_\_\_\_

**BUYER SELLER**

*(Circle One)*

## Handshake Market Activity

### STUDENT SCORE SHEET

	Transaction	Price on Card	Transaction Price	Score
Round 1	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
			<b>Total For Round 1</b>	
Round 2	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
			<b>Total For Round 2</b>	
Round 3	1			
	2			
	3			
	4			
	5			
	6			



# ROUND 1--SELLERS REPORT TRANSACTION PRICE TO ME; EVERYONE GETS A NEW CARD!

- Unregulated market
- Who will set prices?



# ROUND 1: UNREGULATED “FREE ENTERPRISE” MARKET

- Who set prices?
- What would equilibrium price eventually be?



# ROUND 2--SELLERS STILL REPORT TO ME; EVERYONE STILL GETS A NEW CARD!!

- Price ceiling: Govt sets maximum price of \$3
- Who will this help?
- **On your paper: predict what will happen to price and quantity in round 2.**



## ROUND 2: GOVT SETS PRICE CEILING

- Price ceiling: Govt sets maximum price of \$3
- Who is this helping?
- How many times did sellers leave the market?
- Were buyers better off?
- What happened to price and quantity?



# ROUND 3--SELLERS STILL REPORT TO ME; EVERYONE STILL GETS A NEW CARD!!

- No more price ceiling! Back to unregulated market like round 1.
- However, there is a substitute for elbow-bumps that is now available: fist-bumps from Ms. Brown! The price of my fist-bumps has just dropped from \$10 to \$3.
  - Therefore, two separate markets in the room!!
- **On your paper: predict what will happen to price and quantity of fist-bumps in round 3.**



## ROUND 3: PRICE OF SUBSTITUTE DECREASED

- Talk to your partner: what happened in the market for elbow bumps this time?
- What happened to the price **of** elbow bumps compared to round 1?
- What happened to the quantity **of** elbow bumps compared to round 1?
- Who caused that change?





# ROUND 4--SELLERS STILL REPORT TO ME; EVERYONE STILL GETS A NEW CARD!

- No more cheap high fives (that market is closed). Back to unregulated market like round 1.
- Instead, the government will place a per unit excise tax of \$3 on all elbow bumps (to be paid by sellers).
  - Therefore, if a seller draws a 2 card, they must sell the handshake for \$5 because of the tax
- You can still leave the market.
- **On your paper: predict what will happen to price and quantity in round 4.**



# ROUND 4: GOVT IMPOSES \$3 TAX ON HANDSHAKES

- Talk to your partner: what happened in the market for handshakes this time?
- What happened to the price of handshakes compared to round 1?
- What happened to the quantity of handshakes compared to round 1?
- Who caused that change?



# The role of buyers and sellers

**What is the role of buyers in the market?**

- Bring money
- Collect information
- Provide feedback
- Seeking bargains



**What is the role of sellers in the market?**

- Bring products
- Provide information
- Collect feedback
- Seeking profits



**Establish the equilibrium price and quantity**

# Demand and the Law of Demand

# DEMAND DEFINED

## What is Demand?

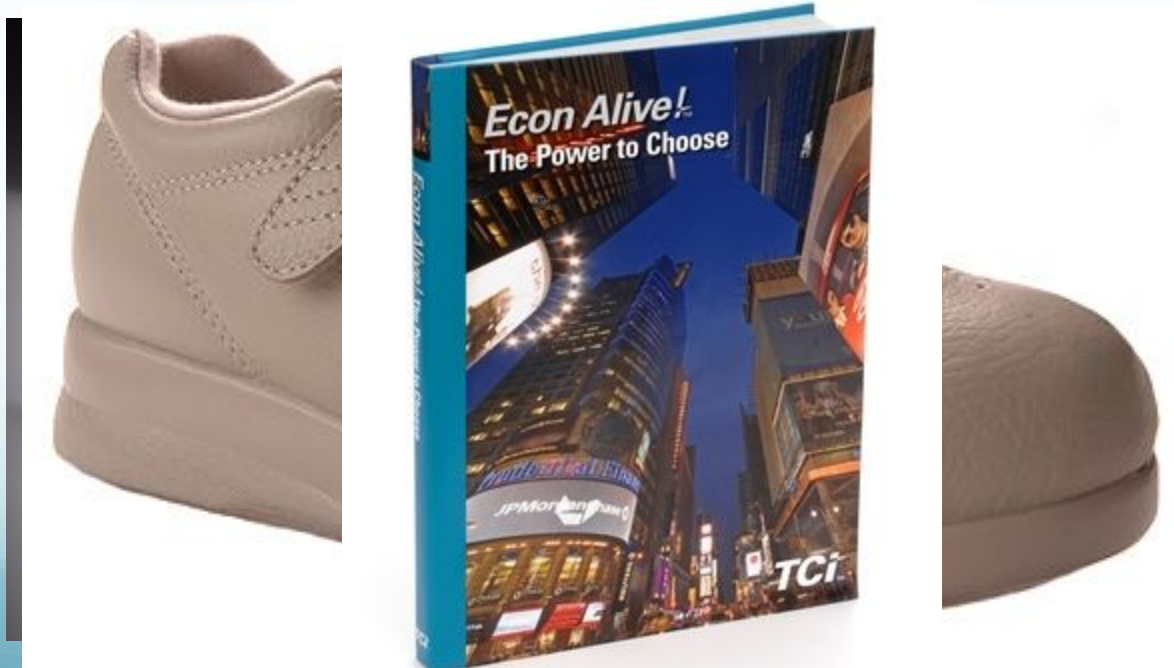
Demand is the different quantities of goods or services that consumers are **willing** and **able** to buy at different prices.

## What is the Law of Demand?

There is an **INVERSE** relationship between price and quantity demanded. When price goes down, quantity demanded increases.

# Raise your hand if ...

- You have **DEMAND** for the following goods:



# Ferdinand Friday, Sept. 16 | Mirabella Monday, Sept. 19

- Warm up: TTYN re who you would want to endorse a new product that you were trying to sell. Why would you pick them?
- *Learning targets: I can explain the determinants of demand that influence consumer demand and cause the market demand curve to shift. I can graph changes in quantity demanded and changes in demand.*
- **HW1-d posted--get started early! It's long (but easy)**
- **AP Classroom videos + practice questions posted**
- **Unit 1 test Monday, 9/26 and Tuesday, 9/27**

# Seniors!

\*\*Counseling Website

\*\*Go to the senior tab

\*\*Set Appointment





# Why does the Law of Demand occur?

**The law of demand is the result of three separate behavior patterns that overlap:**

**1. The Substitution effect**

**2. The Income effect**

**3. The Law of Diminishing Marginal Utility**

# Why does the Law of Demand occur?



## 1. The Substitution Effect

- If the price goes up for a product, consumers buy less of that product and more of another substitute product (and vice versa).



## 2. The Income Effect

- If the price goes down for a product, the purchasing power increases for consumers -allowing them to purchase more.

# Why does the Law of Demand occur?

## 3. Law of Diminishing Marginal Utility

- Utility = Satisfaction or usefulness
- We buy goods because we get utility from them
- The **law of diminishing marginal utility** states that as you consume more of something, the additional satisfaction that you receive will eventually start to decrease.
- In other words, the more you buy of ANY GOOD the less satisfaction you get from each new unit consumed.

### Discussion Questions:

1. What does this have to do with the Law of Demand?
2. How does this affect the pricing of businesses?



## Can you see the Law of Diminishing Marginal Utility in Disneyland's pricing strategy?

Theme Park Tickets	Ages 3-9	Ages 10+
<u>1-Day Park Hopper® Ticket</u>	<b>\$87.00</b>	<b>\$97.00</b>
<u>2-Day Park Hopper® Ticket</u> Valid now thru January 3, 2011.	<b>\$131.00</b>	<b>\$151.00</b>
<u>3-Day Park Hopper® Bonus Ticket</u> <b>Save up to \$20 per person when you buy online!</b>	<del>\$174.00</del> <b>\$154.00</b>	<del>\$204.00</del> <b>\$184.00</b>
<u>4-Day Park Hopper® Bonus Ticket</u> <b>Save up to \$30 per person when you buy online!</b>	<del>\$199.00</del> <b>\$169.00</b>	<del>\$229.00</del> <b>\$199.00</b>
<u>5-Day Park Hopper® Bonus Ticket</u> <b>Save up to \$40 per person when you buy online!</b>	<del>\$249.00</del> <b>\$179.00</b>	<del>\$249.00</del> <b>\$209.00</b>
<u>6-Day Park Hopper® Bonus Ticket</u> <b>Save up to \$40 per person when you buy online!</b>	<del>\$224.00</del> <b>\$184.00</b>	<del>\$254.00</del> <b>\$214.00</b>

Change
N/A
<b>\$54</b>
<b>\$33</b>
<b>\$15</b>
<b>\$10</b>
<b>\$5</b>

# The Demand Curve

- A demand curve is a graphical representation of a demand schedule.
- The demand curve is downward sloping showing the inverse relationship between price (on the y-axis) and quantity demanded (on the x-axis).
- When reading a demand curve, assume all outside factors, such as income, are held constant. (This is called *ceteris paribus*)

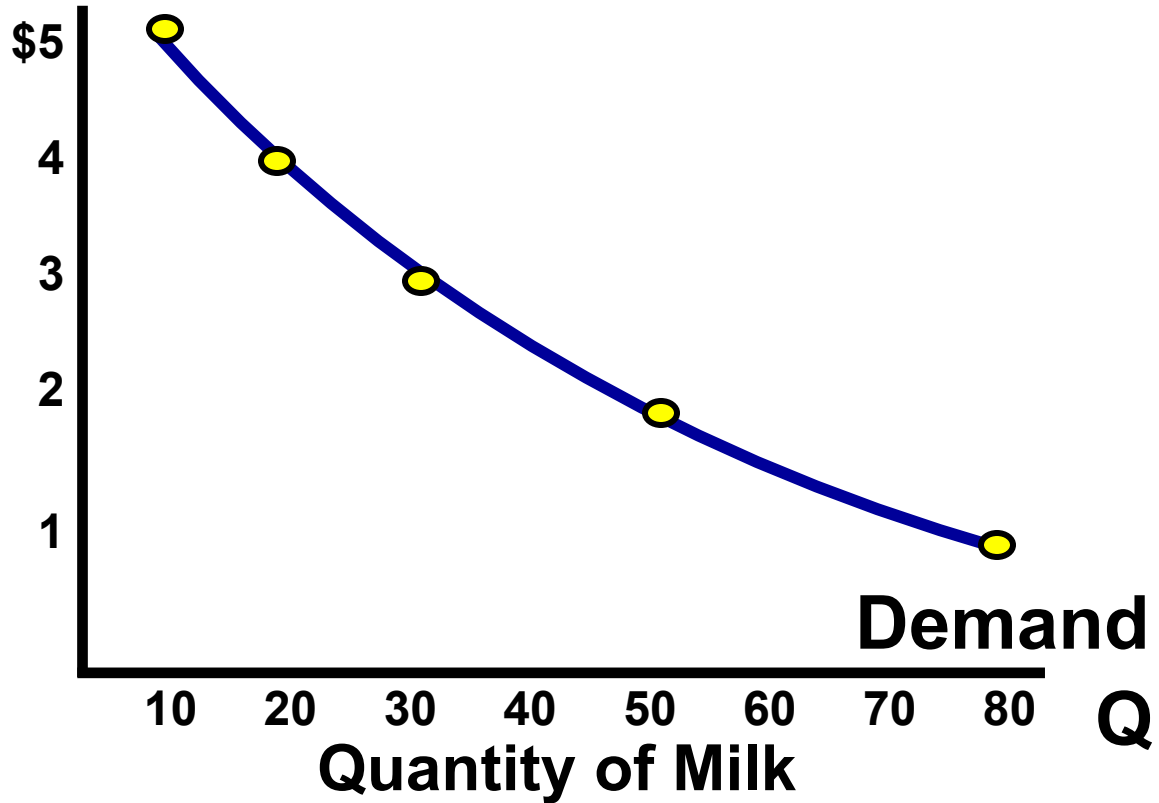
**Let's draw a demand curve for milk...**

# GRAPHING DEMAND

## Demand Schedule

Price	Quantity Demanded
\$5	10
\$4	20
\$3	30
\$2	50
\$1	80

## Price of Milk



# Where do you get the Market Demand?

**Billy**

Price	Q Demd
\$5	1
\$4	2
\$3	3
\$2	5
\$1	7

**Jean**

Price	Q Demd
\$5	0
\$4	1
\$3	2
\$2	3
\$1	5

**Other Individuals**

Price	Q Demd
\$5	9
\$4	17
\$3	25
\$2	42
\$1	68

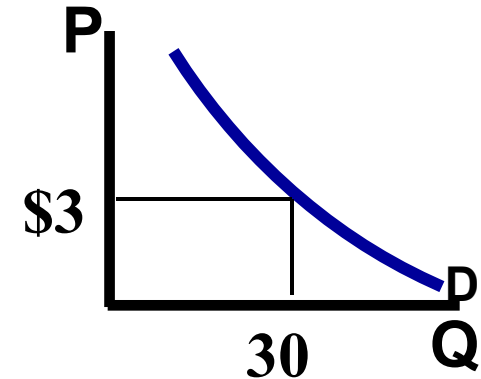
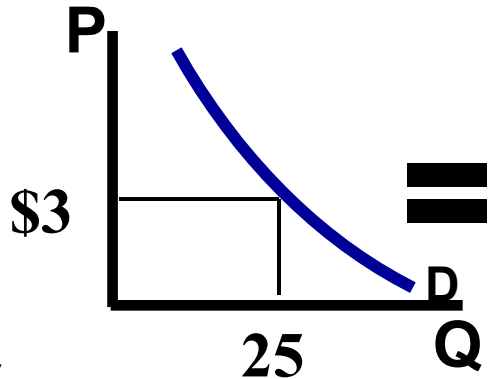
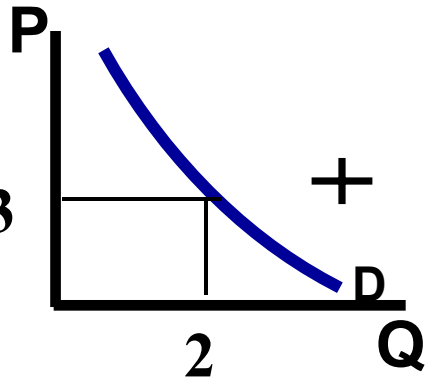
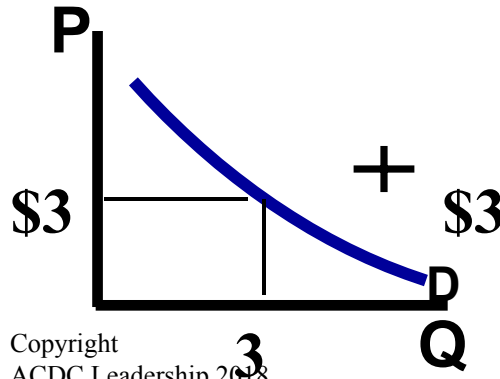
**Market**

Price	Q Demd
\$5	10
\$4	20
\$3	30
\$2	50
\$1	80

+

+

=



# QUANTITY DEMANDED

- **QUANTITY DEMANDED** IS HOW MUCH IS BOUGHT AT A PARTICULAR PRICE and it is shown by a single point on a demand curve.
- Example:
  - If I buy 1 pair of flip-flops when the price is \$20, then my quantity demanded is 1 at \$20 ( $Q_d = 1$ )
  - If I buy 4 pairs of flip-flops when the price is \$2, then my quantity demanded is 4 at \$2 ( $Q_d = 4$ )



# Changes in Quantity Demanded

Price of  
Ice-Cream  
Cones

\$2.00

1.00

0

4

8

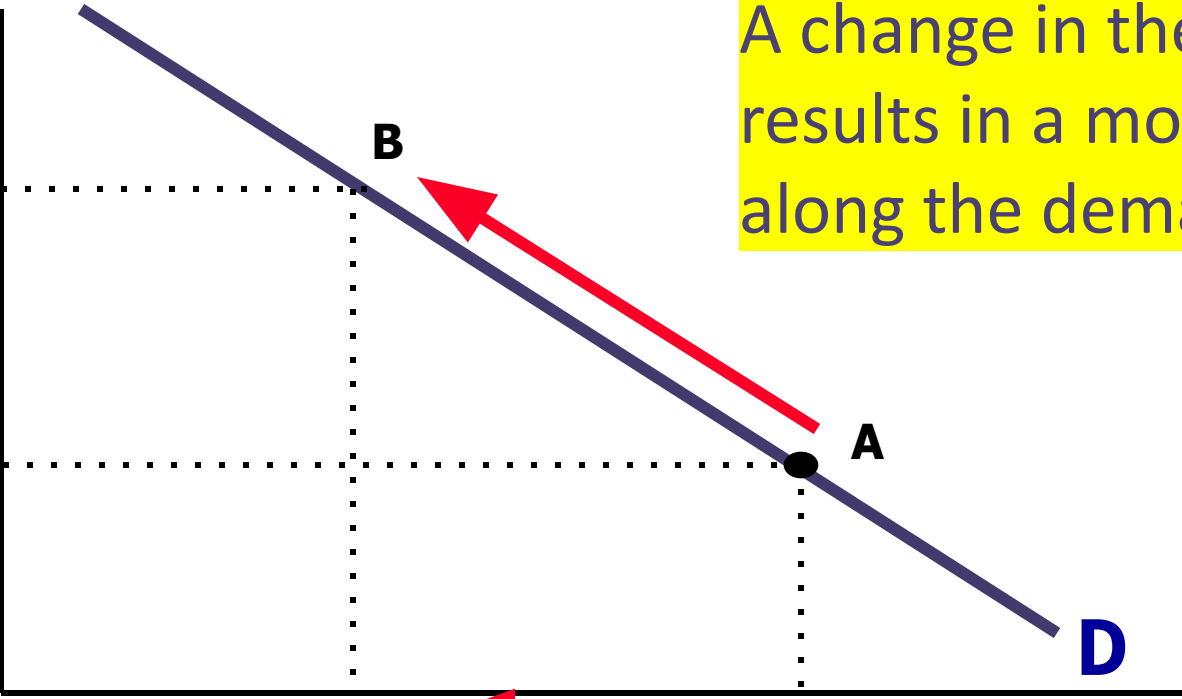
Quantity of Ice-Cream Cones

B

A

D

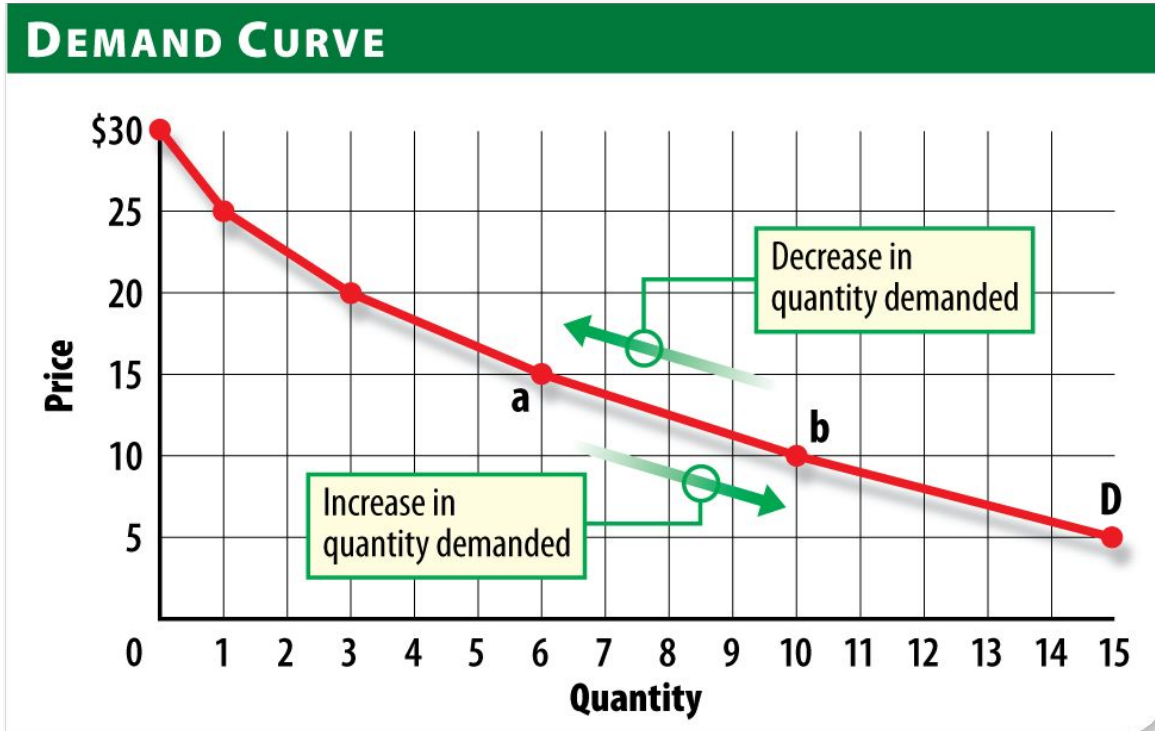
A change in the price of results in a movement along the demand curve.



We show a change in quantity demanded by moving to a new point along the original curve!!

Figure 4.3

Change in the Quantity Demanded



**WHAT DOES A CHANGE IN  
PRICE DO TO A DEMAND CURVE?**



**MOVE ALONG. MOVE ALONG.**

What if we  
change  
something other  
than the price of  
our product?



# Shifts in Demand

- **When we change something other than the price of our product, movement no longer occurs along the demand curve. Rather, the entire demand curve shifts.**
- **A shift means that at the same prices, more (or fewer) people are willing and able to purchase that good.**

**This is a change in demand, not a change in quantity demanded!**

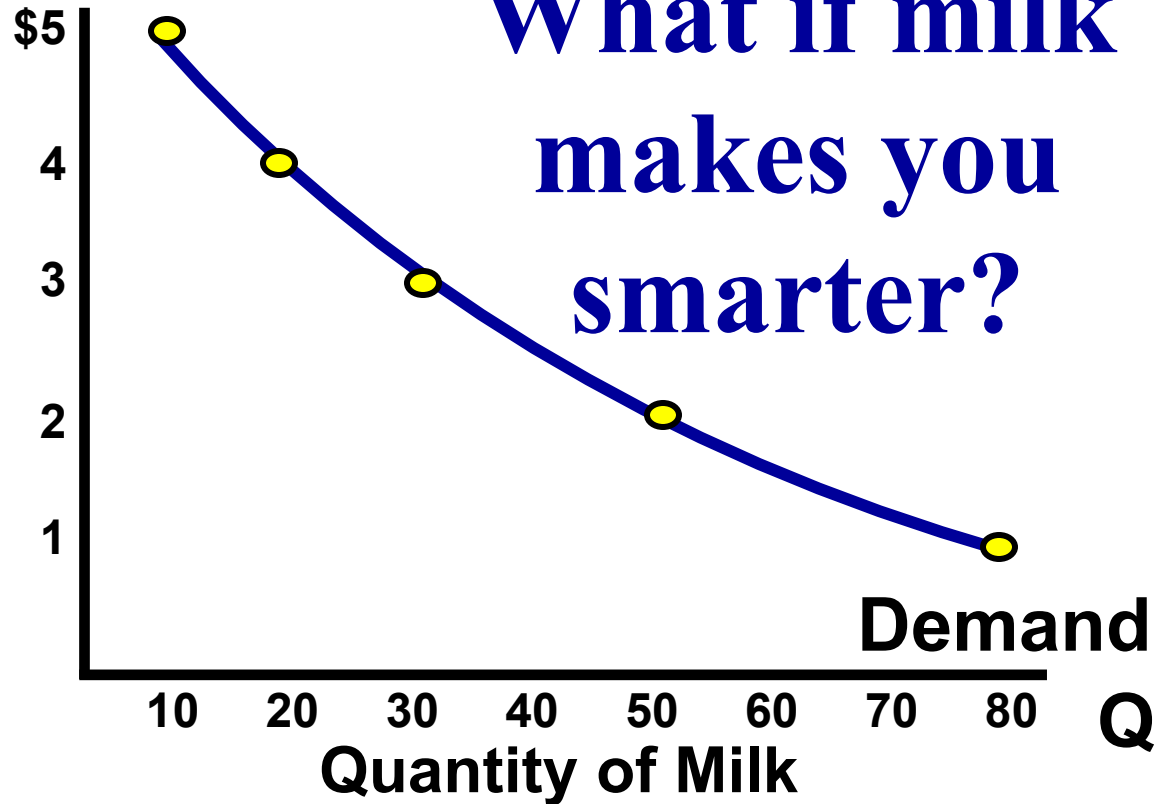
**PRICE DOESN'T SHIFT THE CURVE**

# Change in Demand

## Demand Schedule

## Price of Milk

Price	Quantity Demanded
\$5	10
\$4	20
\$3	30
\$2	50
\$1	80



# Change in Demand

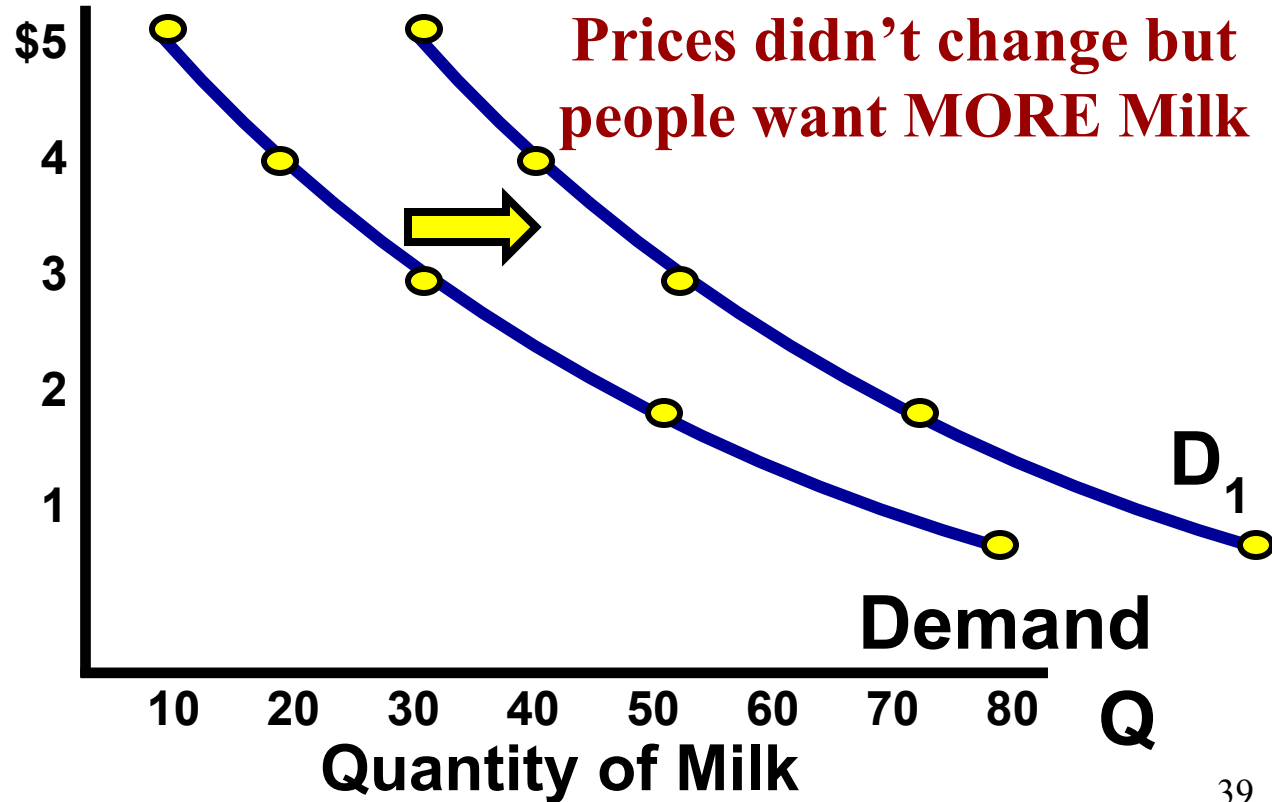
## Demand Schedule

Price	Quantity Demanded
\$5	<del>10</del> 30
\$4	<del>20</del> 40
\$3	<del>30</del> 50
\$2	<del>50</del> 70
\$1	<del>80</del> 100

## Price of Milk

## Increase in Demand

Prices didn't change but people want **MORE** Milk



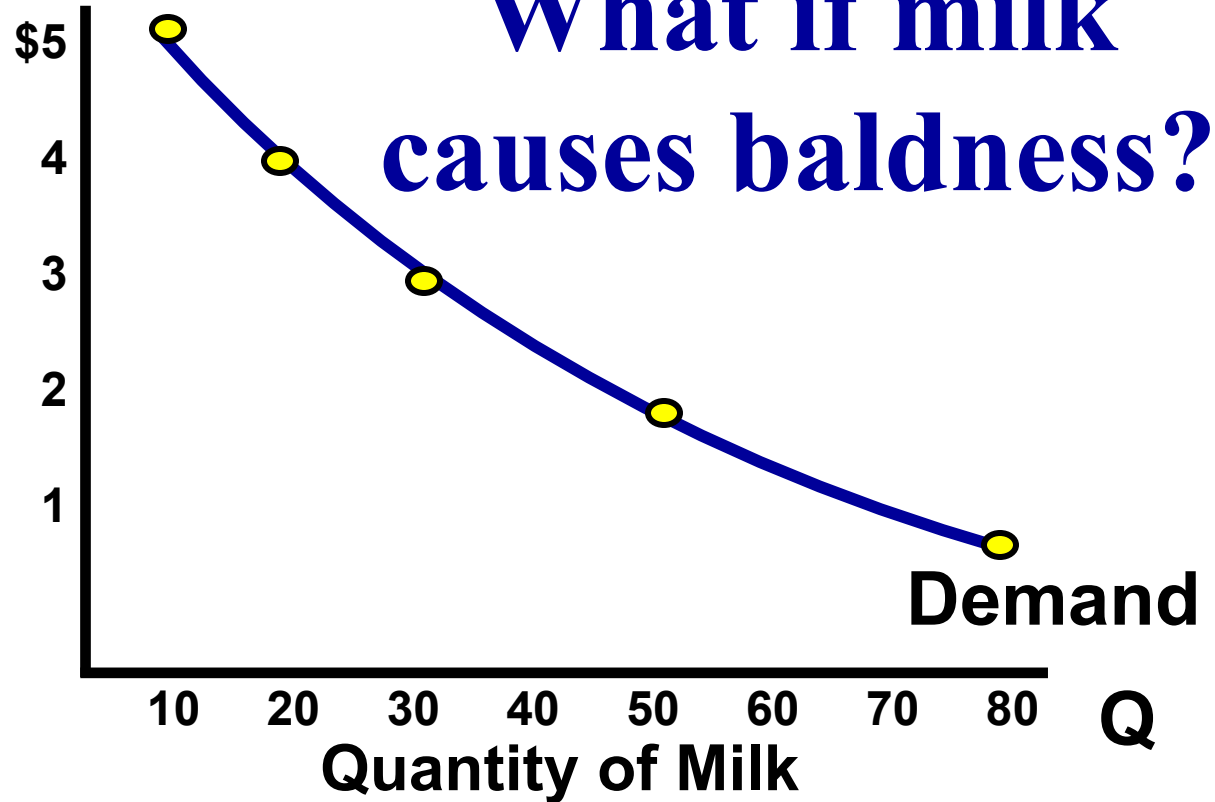
# Change in Demand

## Demand Schedule

## Price of Milk

What if milk  
causes baldness?

Price	Quantity Demanded
\$5	10
\$4	20
\$3	30
\$2	50
\$1	80





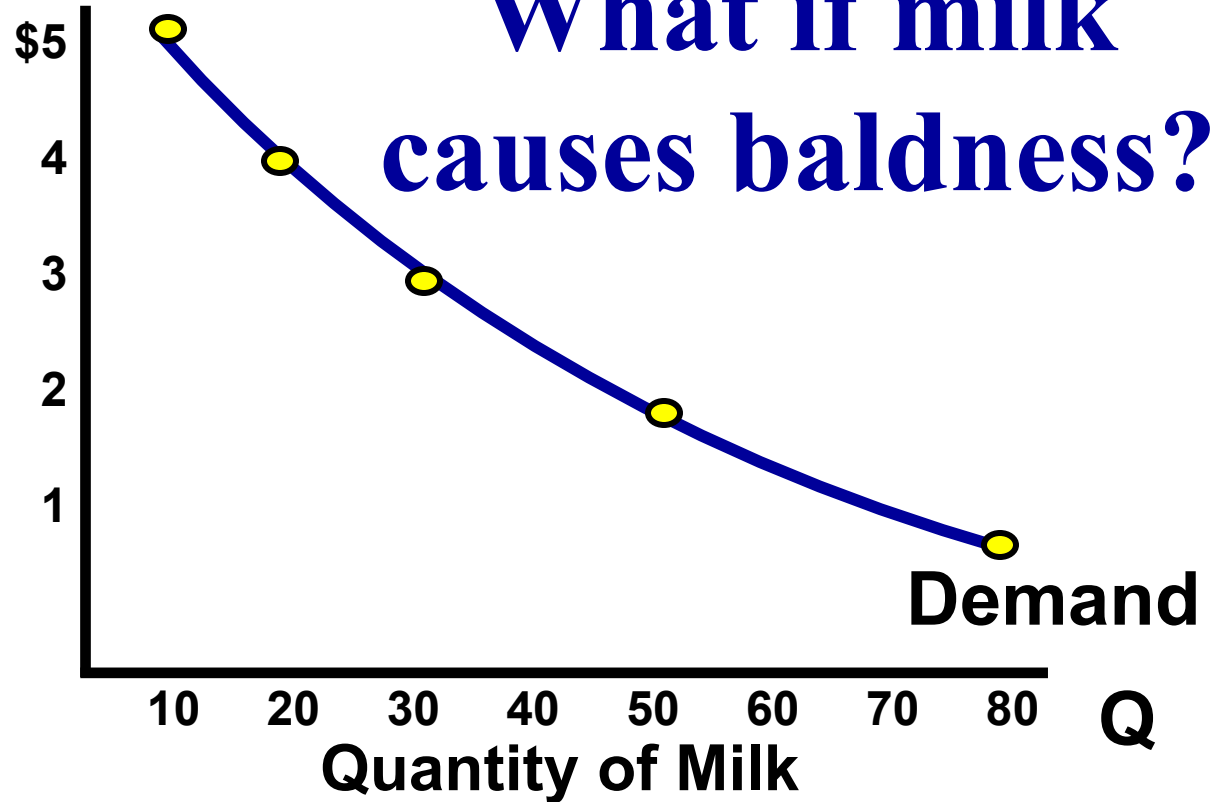
# Change in Demand

## Demand Schedule

Price of Milk

Price	Quantity Demanded
\$5	<del>10</del>
\$4	<del>20</del>
\$3	<del>30</del>
\$2	<del>50</del>
\$1	<del>80</del>

What if milk  
causes baldness?

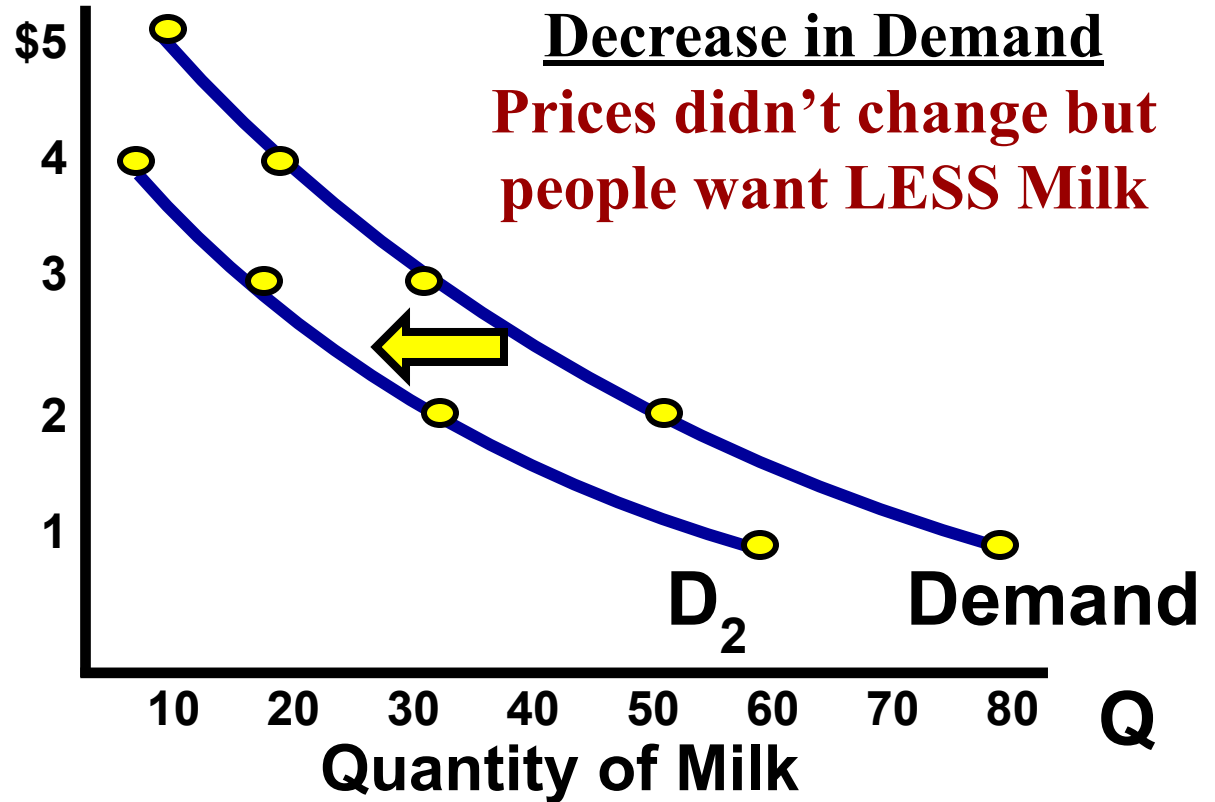


# Change in Demand

## Demand Schedule

## Price of Milk

Price	Quantity Demanded
\$5	<del>10</del> 0
\$4	<del>20</del> 5
\$3	<del>30</del> 20
\$2	<del>50</del> 30
\$1	<del>80</del> 60



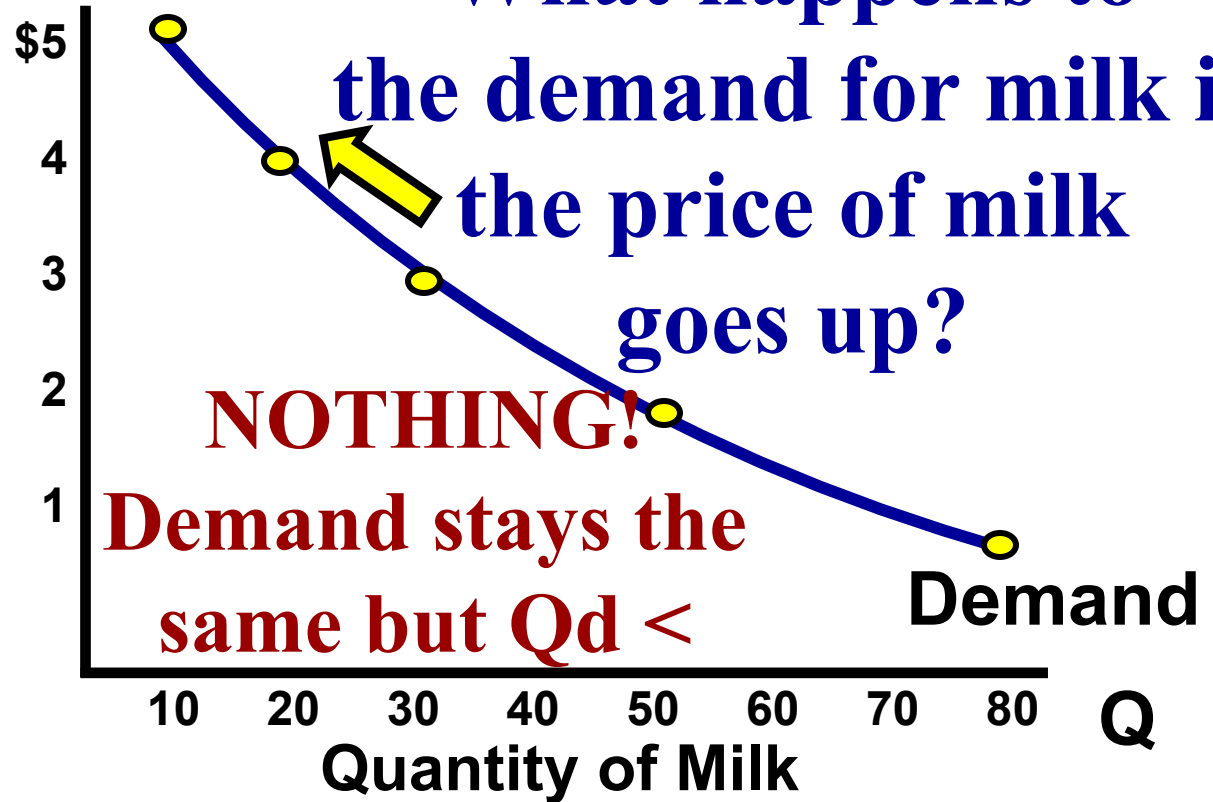
# Change in Demand

## Demand Schedule

Price	Quantity Demanded
\$5	10
\$4	20
\$3	30
\$2	50
\$1	80

Price of Milk

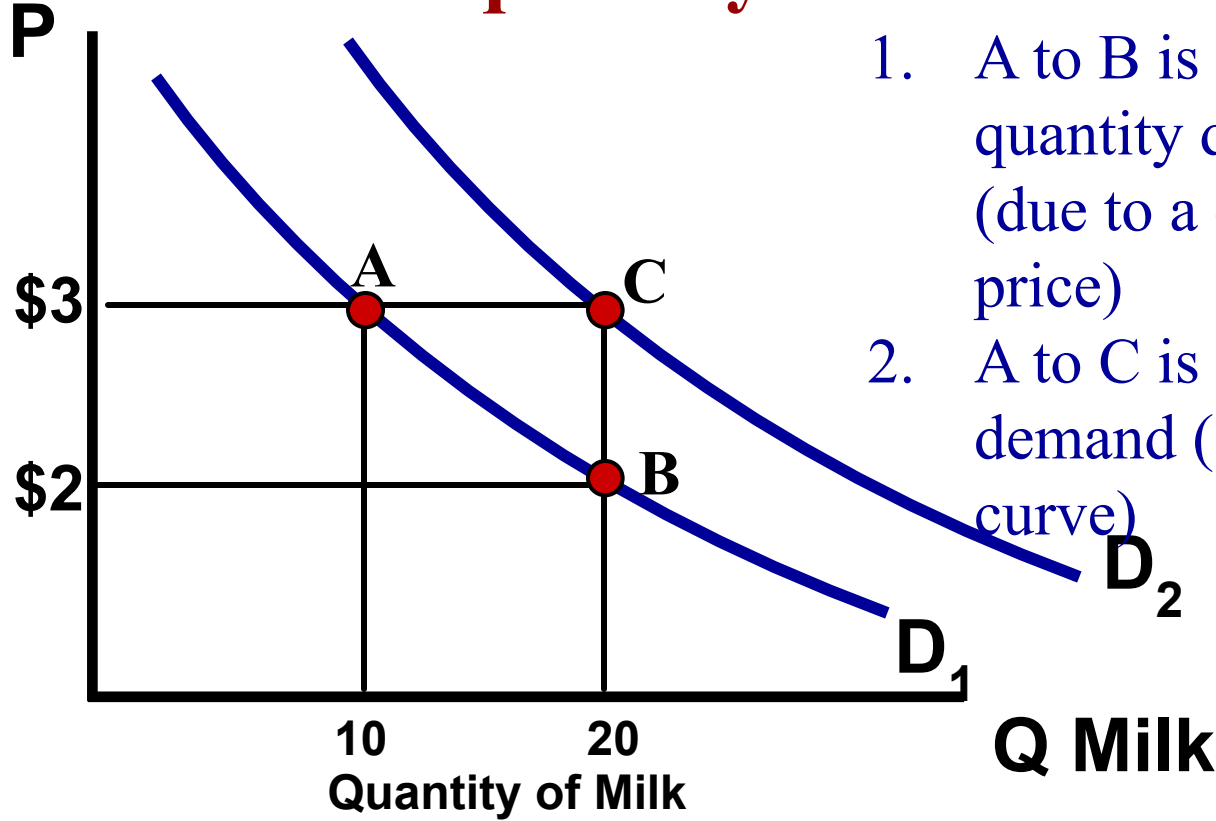
What happens to the demand for milk if the price of milk goes up?



# Change in Qd vs. Change in Demand

**There are two ways to increase quantity from 10 to 20**

Price of Milk



1. A to B is a change in quantity demanded (due to a change in price)
2. A to C is a change in demand (shift in the curve)

What happens when demand or supply change  
(i.e., not just  $Q_d$  or  $Q_s$ )?

- Increase = moves Right
- Decrease = moves Left
- Meet my friend, IRDL the Turtle:



# What Causes a Shift in Demand Curve?

- 6 Shifters (Determinants) of Demand:
  1. Income of consumers
  2. Number of Consumers
  3. Substitutes—change in price or availability
  4. Expectations for the future price of the product
  5. Complements—change in price or availability
  6. Tastes and Preferences of the consumer

# Income of Consumers

- As consumers' income  $\uparrow$ , demand will  $\uparrow$
- As consumers' income  $\downarrow$ , demand will  $\downarrow$

# Income of Consumers

The incomes of consumer change the demand, but how depends on the type of good.

## 1. Normal Goods

- Ex: Luxury cars, seafood, jewelry, homes
- As income increases, demand increases
- As income falls, demand falls



## 2. Inferior Goods

- Ex: Top Ramen, used cars, used clothes
- As income increases, demand falls
- As income falls, demand increases





# Number (#) of Consumers

- As the # of consumers  $\uparrow$ , demand will  $\uparrow$
- As the # of consumers  $\downarrow$ , demand will  $\downarrow$

# Substitute Goods

(change in price or availability of)

- **Substitutes are goods used in place of one another.**
  - If the price of one  $\uparrow$ , the demand for the other will  $\uparrow$  (or vice versa).
  - If the availability of one  $\downarrow$ , the demand for the other will  $\uparrow$  (or vice versa).
  - **Ex: If price of Pepsi falls, demand for Coke will decrease.**
  - **Ex. Glasses & contact lenses.**

# Expectations of Future Price Changes

- If consumers expect prices to  $\uparrow$  in the future, then demand NOW will  $\uparrow$
- If consumers expect prices to  $\downarrow$  in the future, then demand NOW will  $\downarrow$ 
  - Ex: demand for TVs one month before Black Friday?

# Complementary Goods (or Complements)

(change in price or availability of)

**Complements are two goods that are bought and used together.**

- If the price of one  $\uparrow$ , the demand for the other will  $\downarrow$  (or vice versa).
- If the availability of one  $\downarrow$ , the demand for the other will  $\downarrow$  (or vice versa).
- **Ex: If price of hot dogs increases, demand for hot dog buns will decrease.**
- **Ex: If PS4 consoles become less available, then demand for PS4 games will decrease.**

# Substitutes or Complements?



# Substitutes or Complements?



What happens in the market for SUVs when the price of gas increases?

# Substitutes or Complements?



What happens in the market for ice cream when the price of frozen yogurt decreases?

# Substitutes or Complements?



What happens in the market for maple syrup when the price of waffles decreases?



# Substitutes or Complements?



What happens in the market for electric cars when the price of gas-powered cars increases?

# Substitutes or Complements?



What happens in the market for cell phone chargers when the price of cell phones increases?

# Substitutes or Complements?



What happens in the market for CFA sandwiches when the availability of Popeyes sandwiches decreases?

# Complements?



# Substitutes



# Substitutes



# Substitutes

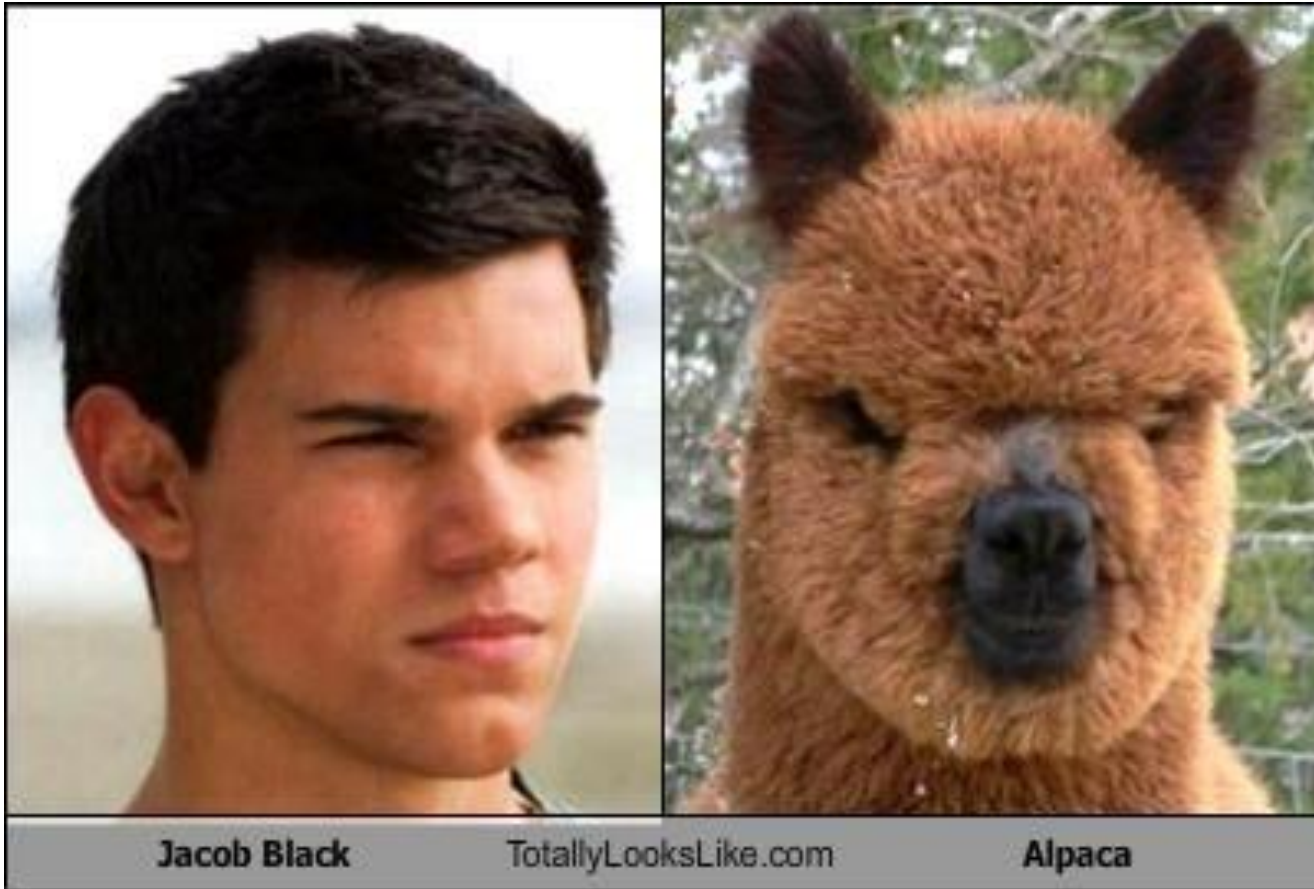


**Rihanna**

TotallyLooksLike.com

**Lime Cat**

# Substitutes





# Tastes and Preferences of Consumers

- What are other things that can make people buy more or less of something? Things like...
  - Celebrity endorsements
  - Health reports or studies
  - Popular trends (like Silly Bands, Greek yogurt)

# Consumer Tastes and Preferences

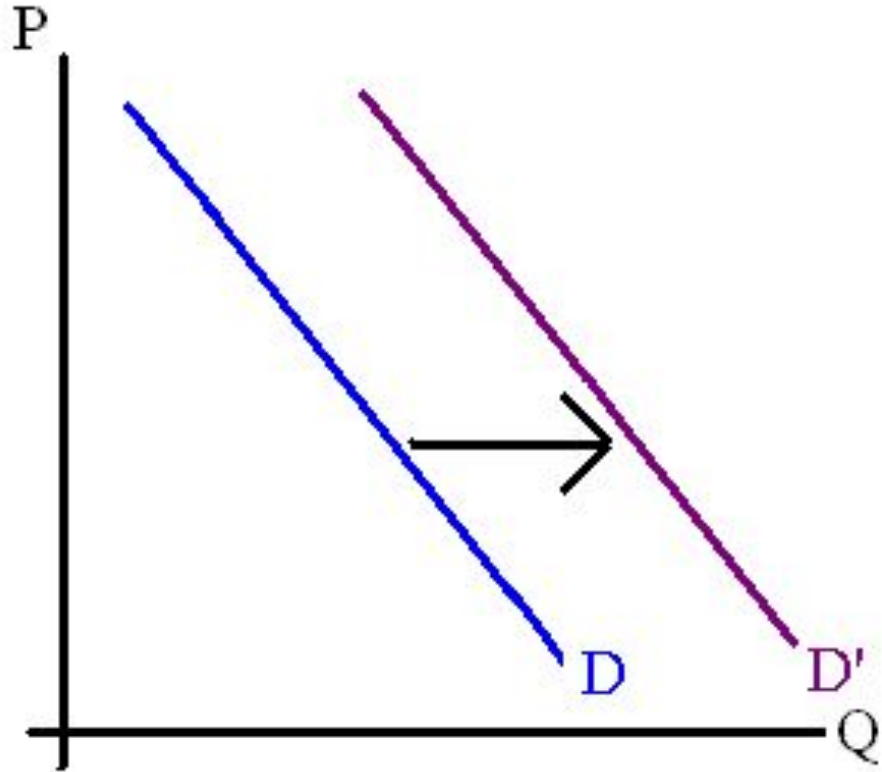


What happens when demand or supply change  
(i.e., not just  $Q_d$  or  $Q_s$ )?

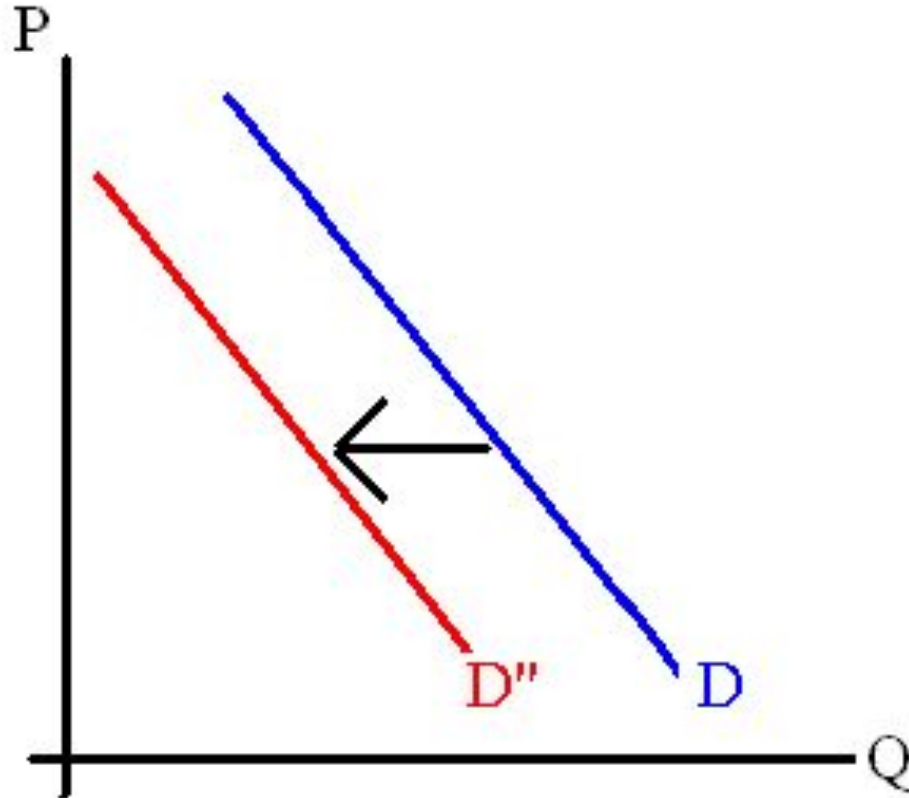
- Increase = moves Right
- Decrease = moves Left
- Meet my friend, IRDL the Turtle:



Increase in Demand:  
Entire curve moves **RIGHT**



**Decrease in Demand:**  
Entire curve moves **LEFT**



# TTYN Practice

First identify the determinant (Shifter). Then decide if demand will increase or decrease for hamburgers

- a. Population boom
- b. Incomes fall due to recession
- c. Price for beef burritos falls to \$1
- d. Price increases to \$5 for hamburgers
- e. New health craze- “No ground beef”
- f. Hamburger restaurants announce that they will significantly increase prices NEXT month
- g. Government heavily taxes shake and fries causes their prices to increase four times.
- h. Restaurants lower price of burgers to \$.50

# Shifters Practice with White Boards

1. Will there be an increase or decrease in demand?
2. What is the determinant (shifter)?
3. Draw the movement on a graph.

# Cigars

- A new study shows that smoking cigars results in lots of wrinkles.



# Butter

- The price of margarine goes up.

# Jelly Beans

- The price of jellybeans goes up

# Hula Hoops

- Brad Pitt confides to People magazine that "he gets a big kick out of his hula hoop."

# Yachts

- The stock market falls by more than 20%

# Redwood Lumber

Environmentalists urge consumers to boycott redwood products.

# Gasoline

- Large sports-utility vehicles (like Suburbans and Expeditions) become more popular.

# Umbrellas

- Heavy rain is forecast.

# U.S. Cars

- The U.S. imposes a tariff on Japanese car imports.



# Taxi Service

- MARTA workers go on strike

# BK Whoppers

- McDonald's lowers the price of Big Macs.

# Hot Dogs

- 60 Minutes does an expose called "The Truth about Hot Dogs."