



Summer Institute: Microeconomics

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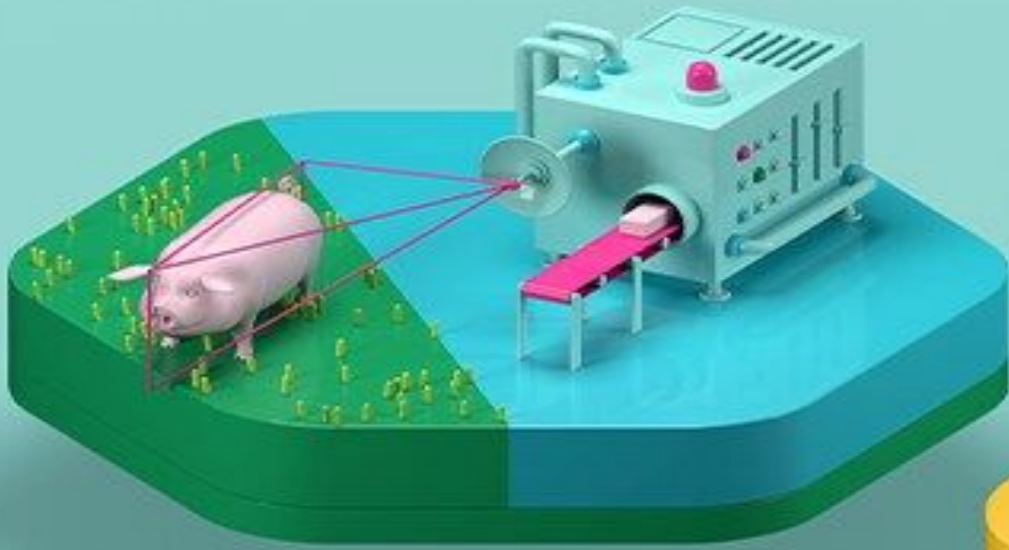
Agenda

- ***Topic 1 - Scarcity, Opportunity Cost, Resources, and the PPF***
 - Opportunity Cost/Marginal Analysis Activity
 - Factors of Production Waterfall
 - PPF Simulation
- ***Topic 2 - Supply, Demand, Equilibrium***
 - Activity - Demand Cartoons
 - MRU Interactives
- ***Topic 3 - Market Structures***
 - Padlet
 - Cartels and Competition
- ***Wrap Up - GimKit***

Objectives

- Explain how scarcity impacts economic decision making.
- Use cost-benefit analysis to make decisions.
- Examine how a society's productive resources are utilized to create goods and services.
- Evaluate how market prices are determined through the interaction of supply and demand.
- Evaluate the impact of different market structures on market output, price, and economic welfare.





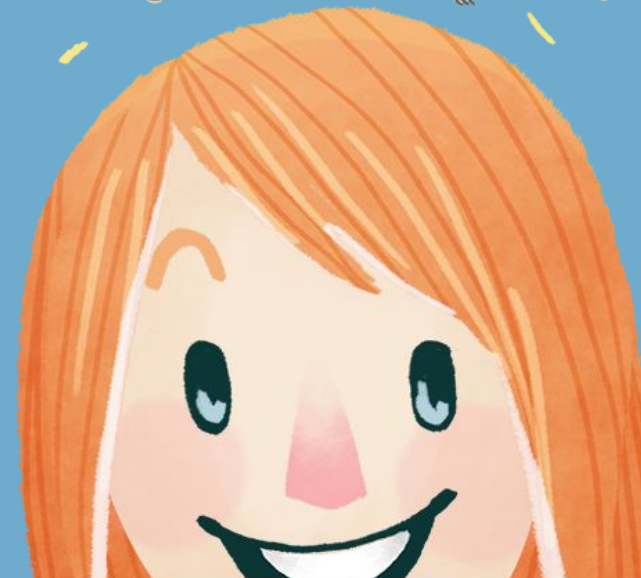
unlimited human wants vs.
limited resources

SCARCITY!

Opportunity Cost

- What you must give up in order to get something else.
- The value of the next best alternative that one gives up when making a decision.
- Examples

Give an example of an opportunity cost you have experienced today. What was your choice? What was the resultant opportunity cost?



Pear Deck™



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Do not remove this bar



Students, write your response!

Marginal Analysis:

Weighing the expected **additional** costs and expected **additional** benefits of making a decision.

- If the marginal (additional) benefit of an action is greater than (or equal to) the marginal (additional) cost, DO IT!
- »
- If the marginal cost of an action is greater than the marginal benefit, DON'T DO IT!

Alyssa desperately wanted to attend the Taylor Swift concert with her friends. Unfortunately, she could not get a ticket for the night on which her friends were going to the concert. She said she had no choice but to stay home with her family and watch TV. Did Alyssa have a choice?

Alternatives	Possible Costs	Possible Benefits	Rank (at the end)

- 1. Rank Alyssa's alternatives.**
- 2. Alyssa's best choice would be _____.**
- 3. Based on this choice, Alyssa's opportunity cost was:**

Factors of Production

Also called **RESOURCES**

The Factors of Production

Resources necessary to produce what people want or need.

1. **Land** is the society's limited natural resources. Ex: crops, physical land, oil, coal, animals.
2. **Capital** is the means by which something is produced such as tools, equipment, machinery, and factories. Human made.



The Factors of Production



3. **Labor** is the workers who apply their efforts, abilities, and skills to production.

4. **Entrepreneurs** are risk-takers who combine the land, labor, and capital

into new products. Ex: Steve Jobs, Dan Cathy, Jeff Bezos

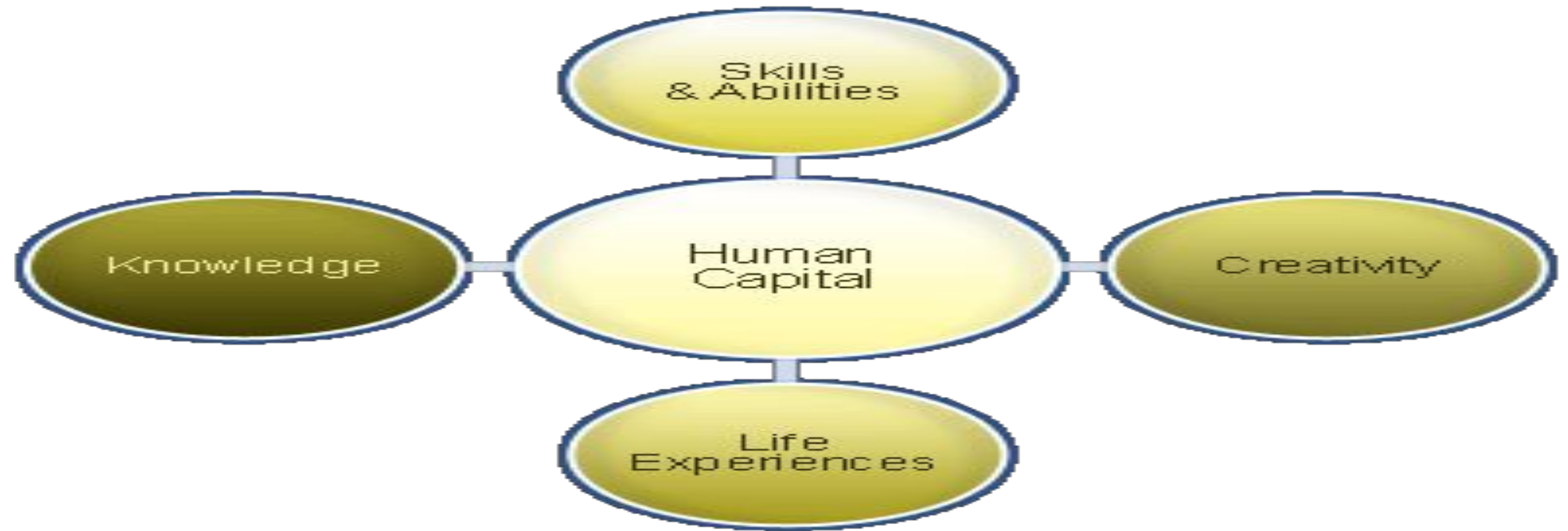



Dan Cathy

Chat Waterfall

Task: List all the resources or materials needed to effectively run your pizza business.





- **Human Capital**: education and skills that allow a person to earn an income
- **Efficiency**: best use of resources

Africa Concrete:

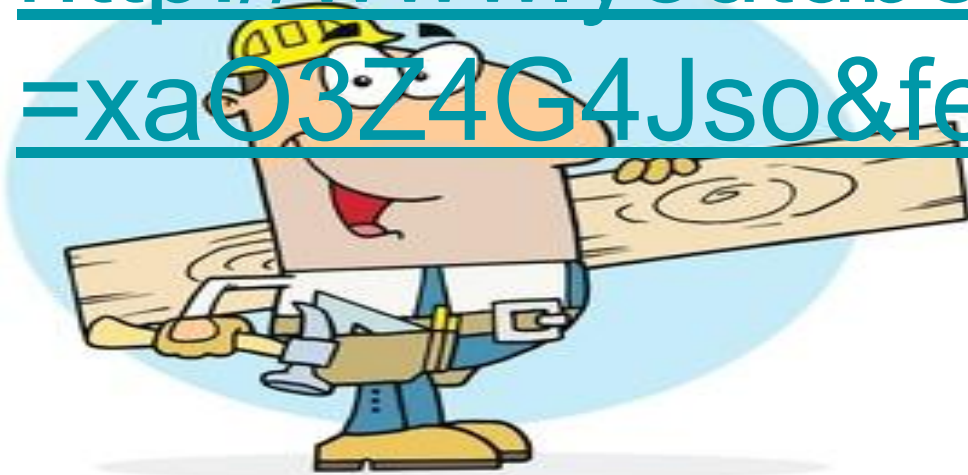
<http://www.youtube.com/watch?v=EYg-cHe79hl>

American Concrete

<http://www.youtube.com/watch?v=91680M9Mt8c>

Bangladeshi Bricklayer :

<http://www.youtube.com/watch?v=xa03Z4G4Jso&feature=relat>



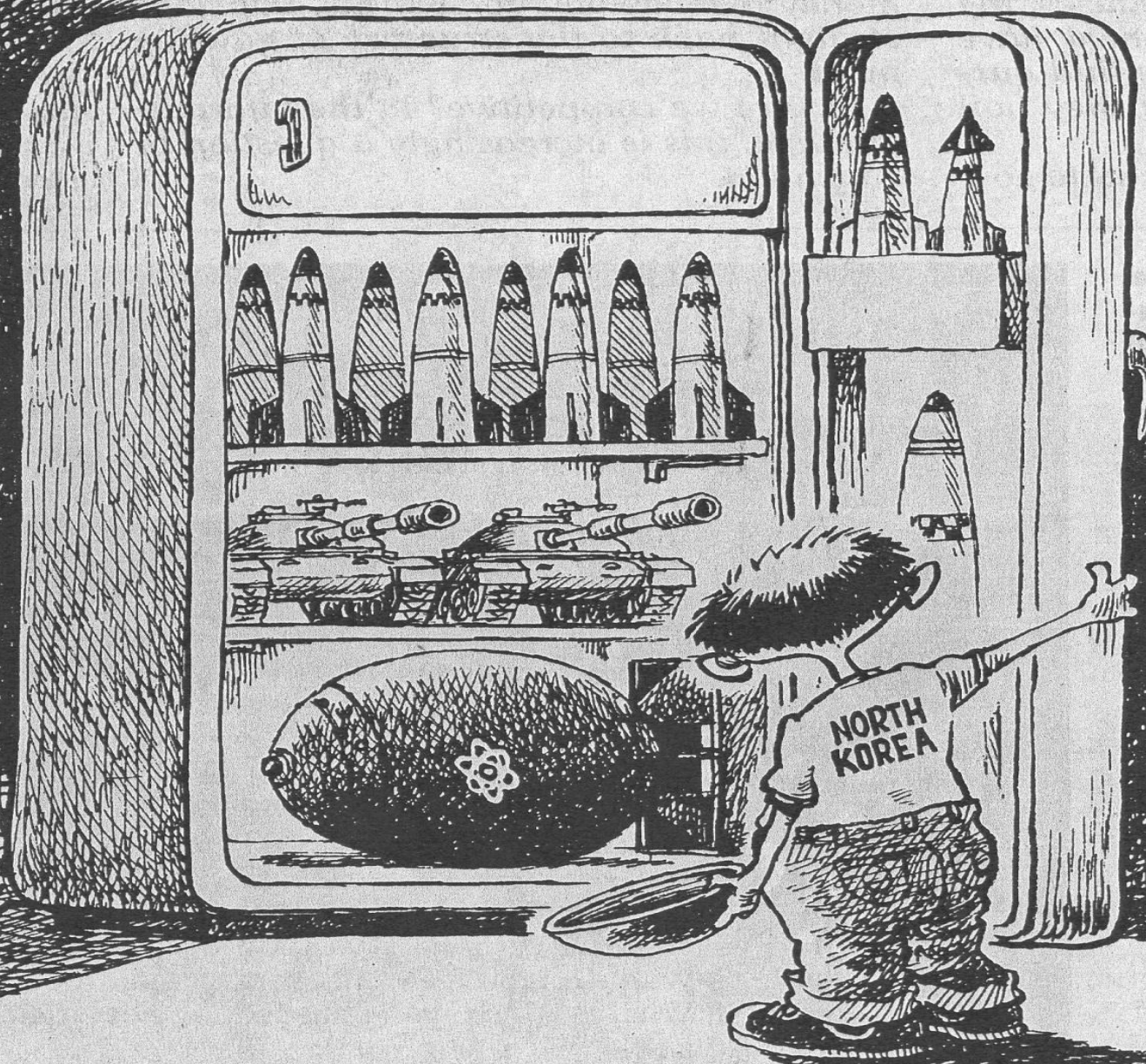






ARIAN © 2003 THE STATE 1-23

**All guns -
no butter ...**



All butter - no guns.



Production Possibilities Simulation - Break Out Rooms

- **Push upper**
- **Texter**
- **Recorder:**
Count Push-ups
& Text
- **Time Keeper**

Round	Texts	Push-Ups
1		
2		
3		
4		
5		

I < 3 Econ

Recorder for each group - List your results for each round!

Round 1: Push-ups (30 seconds)

Round 2: Push-ups (20 Seconds)

Texting (10 Seconds)

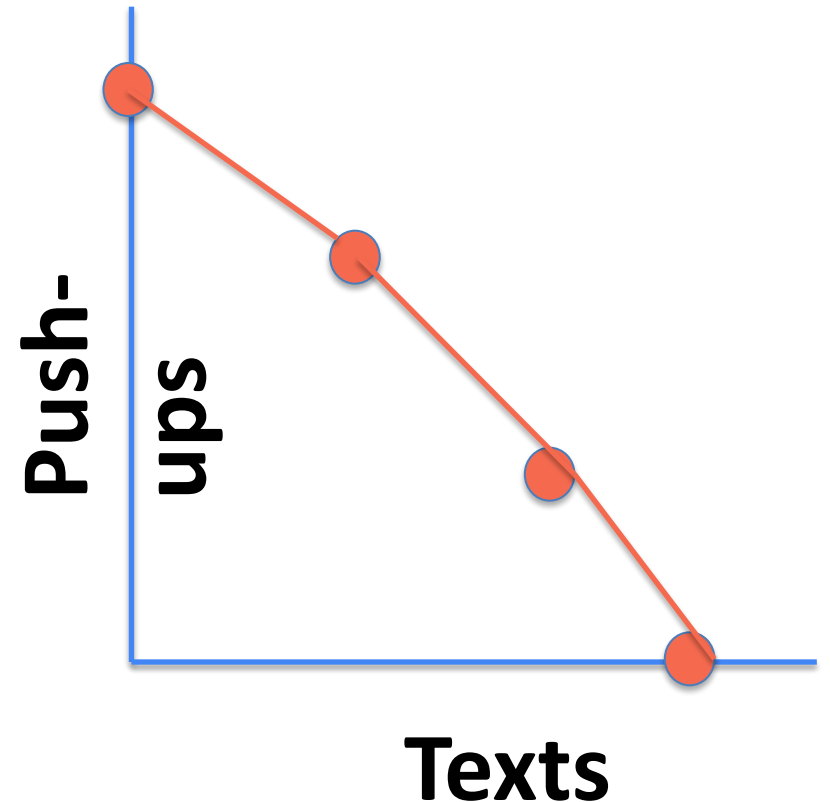
Round 3: Push-ups (15 Seconds)

Texting (15 seconds)

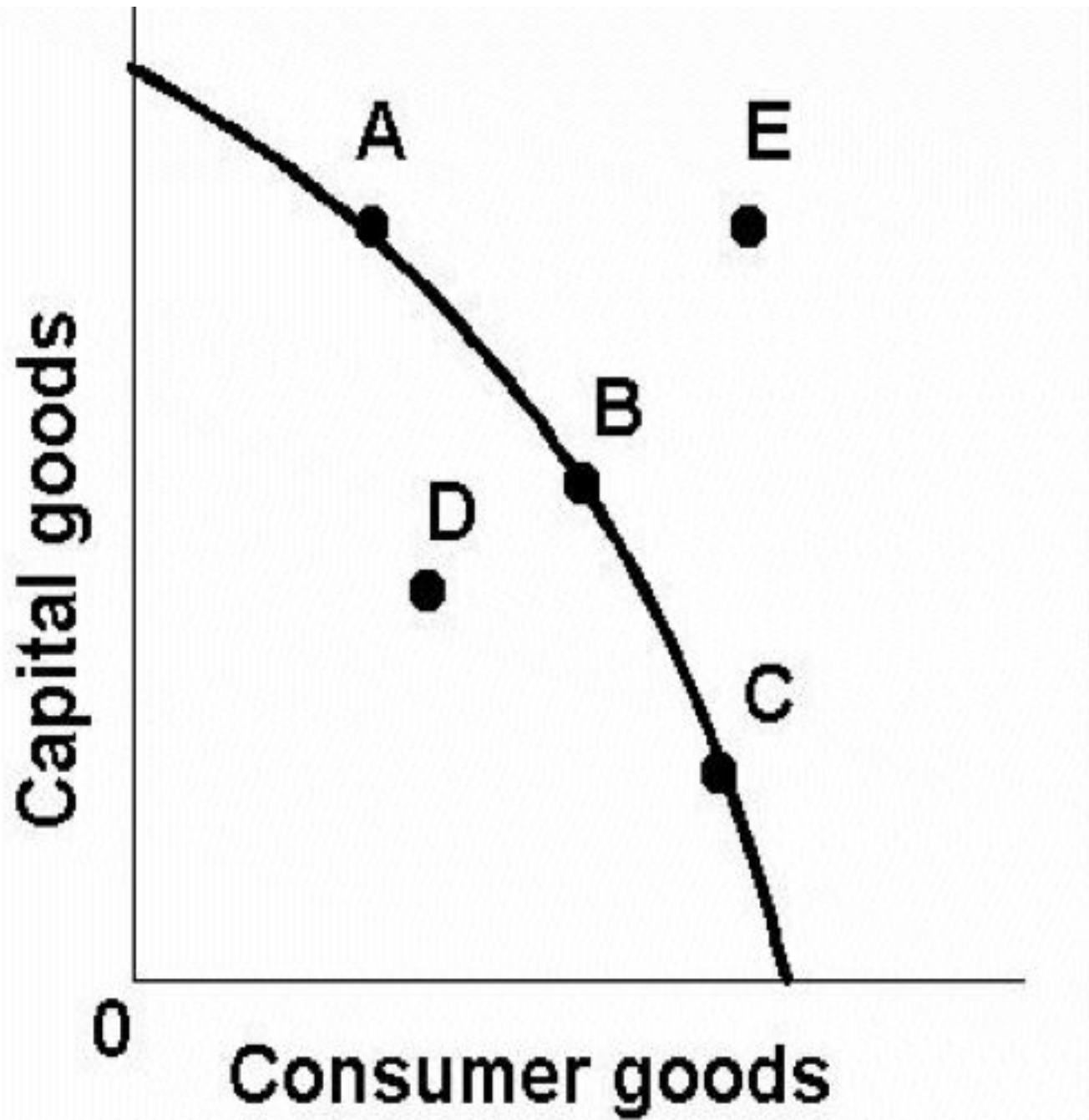
Round 4: Push-ups (10 Seconds)

Texting (20 Seconds)

Round 5: Texting Only (30 Seconds)

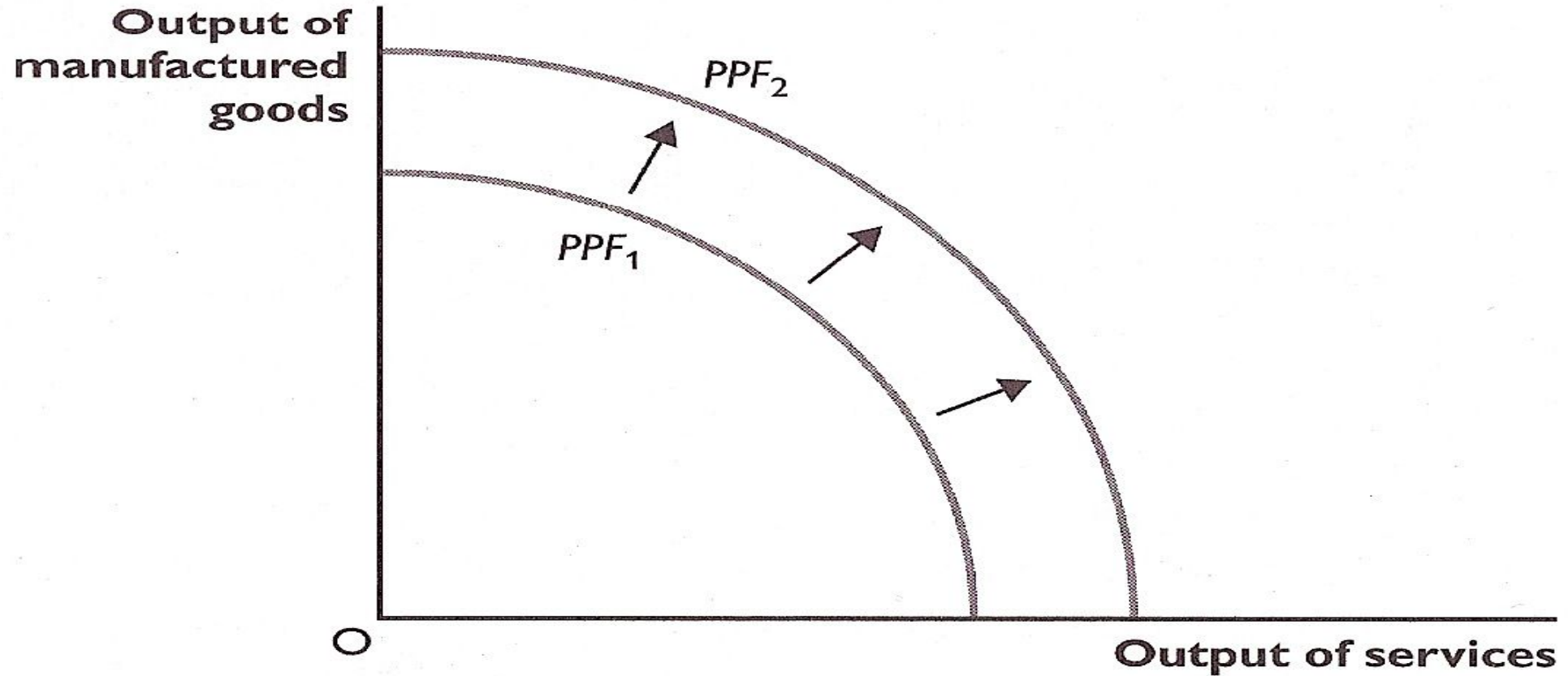


Students, write your response!



- Points A, B, C
- Point D
- Point E
- How can we get more capital AND consumer goods?

Shifts in the production possibility frontier



An increase in the production possibility frontier

Segment 2 - Supply, Demand, Equilibrium



Warm Up

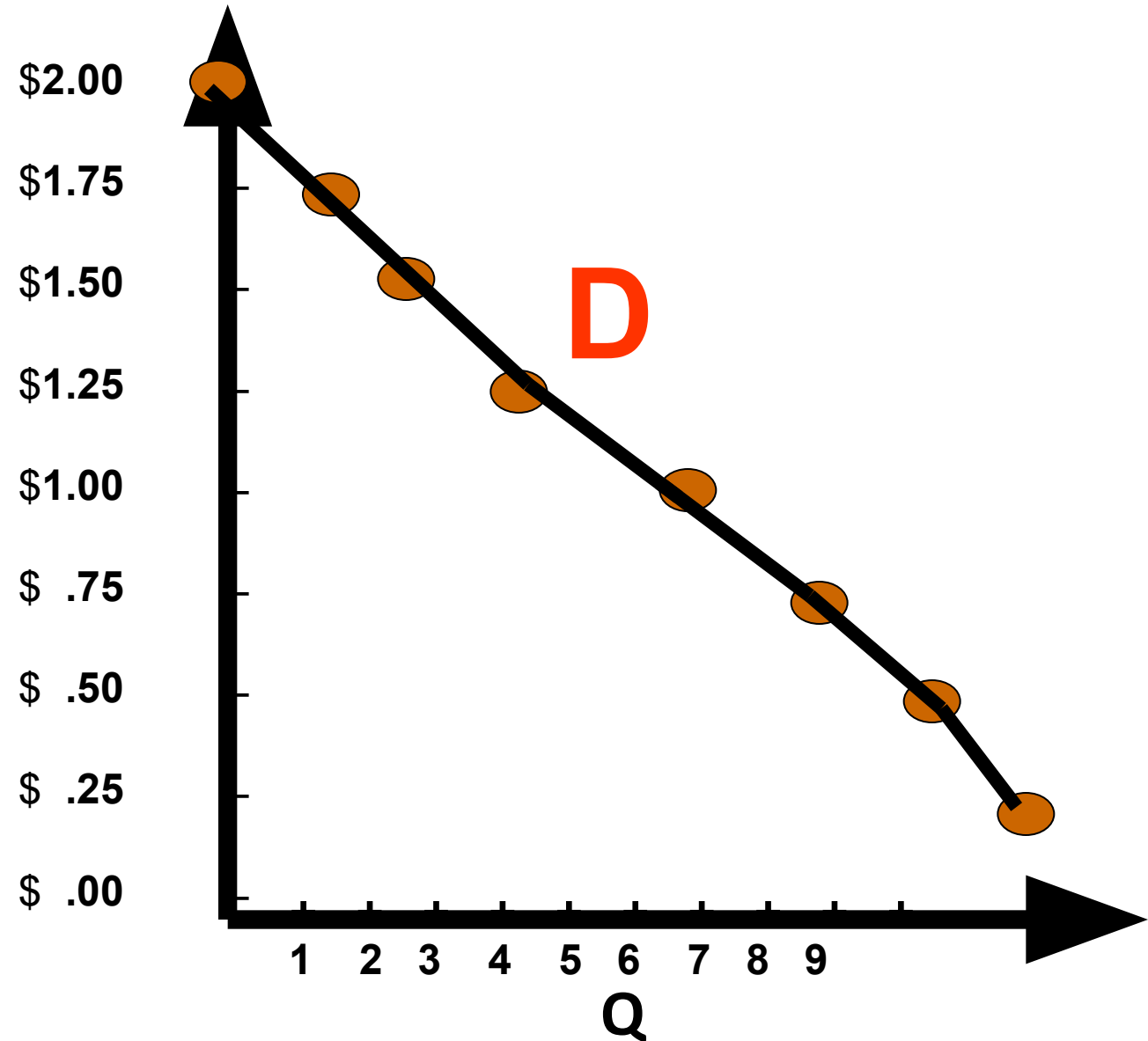
List 5 items you would like to buy this week.

- Place a check mark beside each item that you have the **MONEY** to purchase.



DEMAND

- **DEMAND:** The **WILLINGNESS** and **ABILITY** to buy a product at a given price.
- **THE LAW OF DEMAND:** The quantity demanded of a product varies **INVERSELY** with its price.

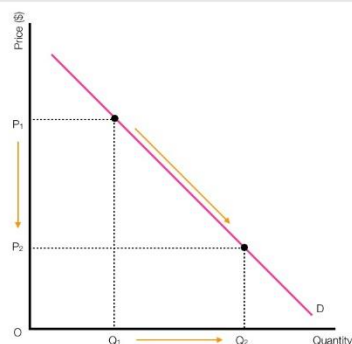


Changes in QUANTITY Demanded and Demand

Quantity Demanded

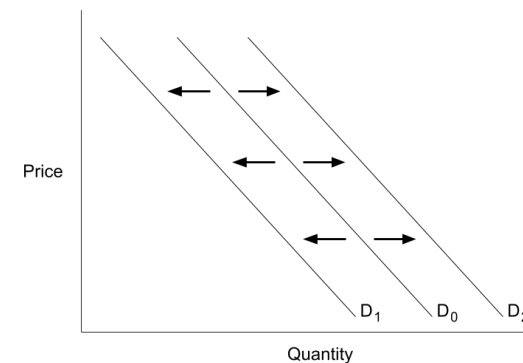
- Only a change in PRICE can alter
- Movement along the SAME demand curve

Change in quantity demanded

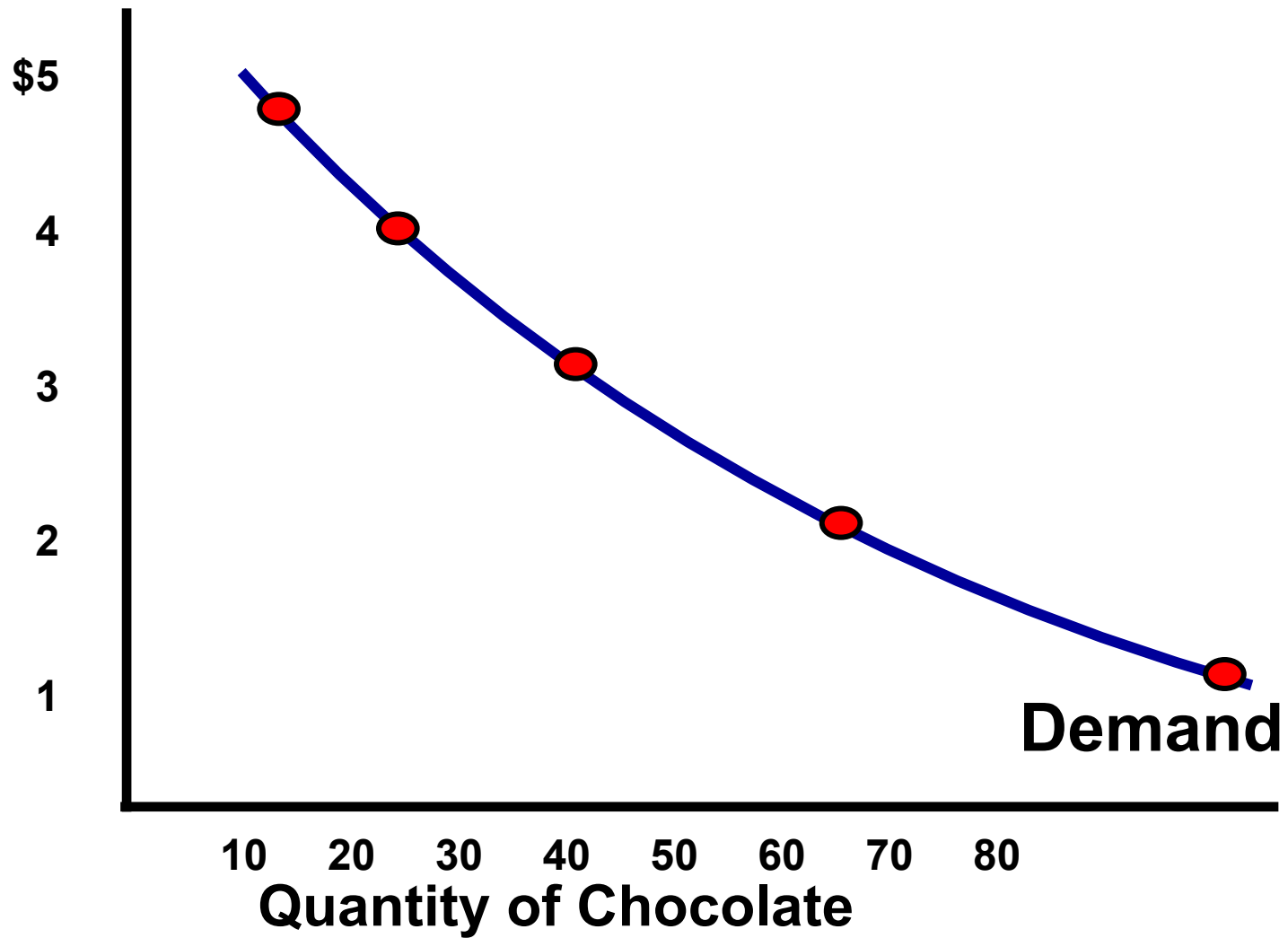


Change in Demand

- caused by an outside factor, such as:
 - **T**astes, **I**ncome, **M**arket Size, **E**xpectations, **R**elated Goods (**TIMER**)
- shifts to a NEW demand curve (to the left or right)



Price of Chocolate

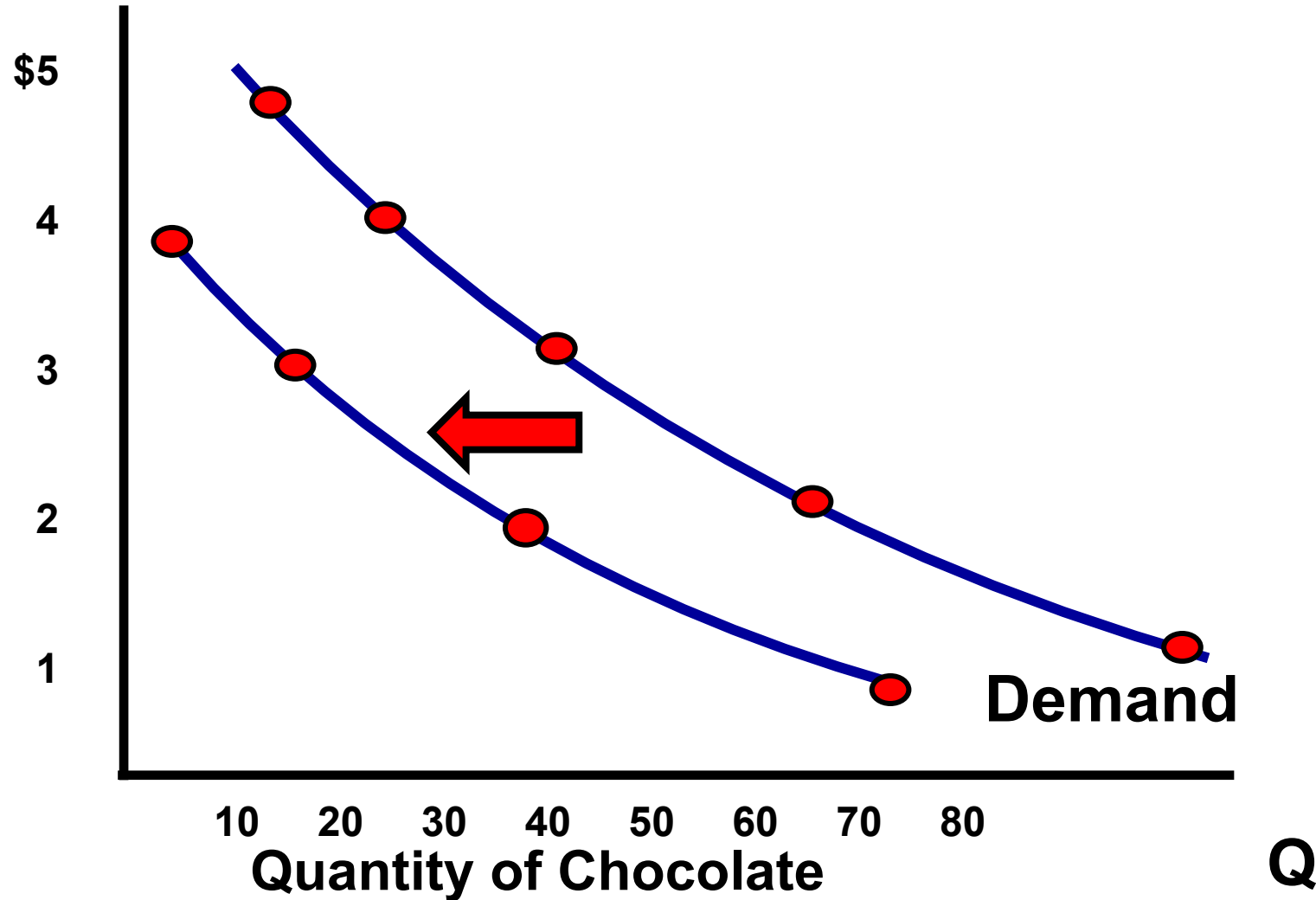


Demand Schedule

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

Change in Demand

Price of Chocolate



Demand Schedule

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

Price of Related Goods

- **Substitute Goods: Competitors**
 - Price of one good goes up, demand for the other goes up.
 - Ex) Price of Pepsi goes up, demand for Coke goes up.
- **Complementary Goods: Go together**
 - Price of one good goes up, demand for the other goes down.
 - Ex) Price of peanut butter goes up, demand for jelly goes down.



Income

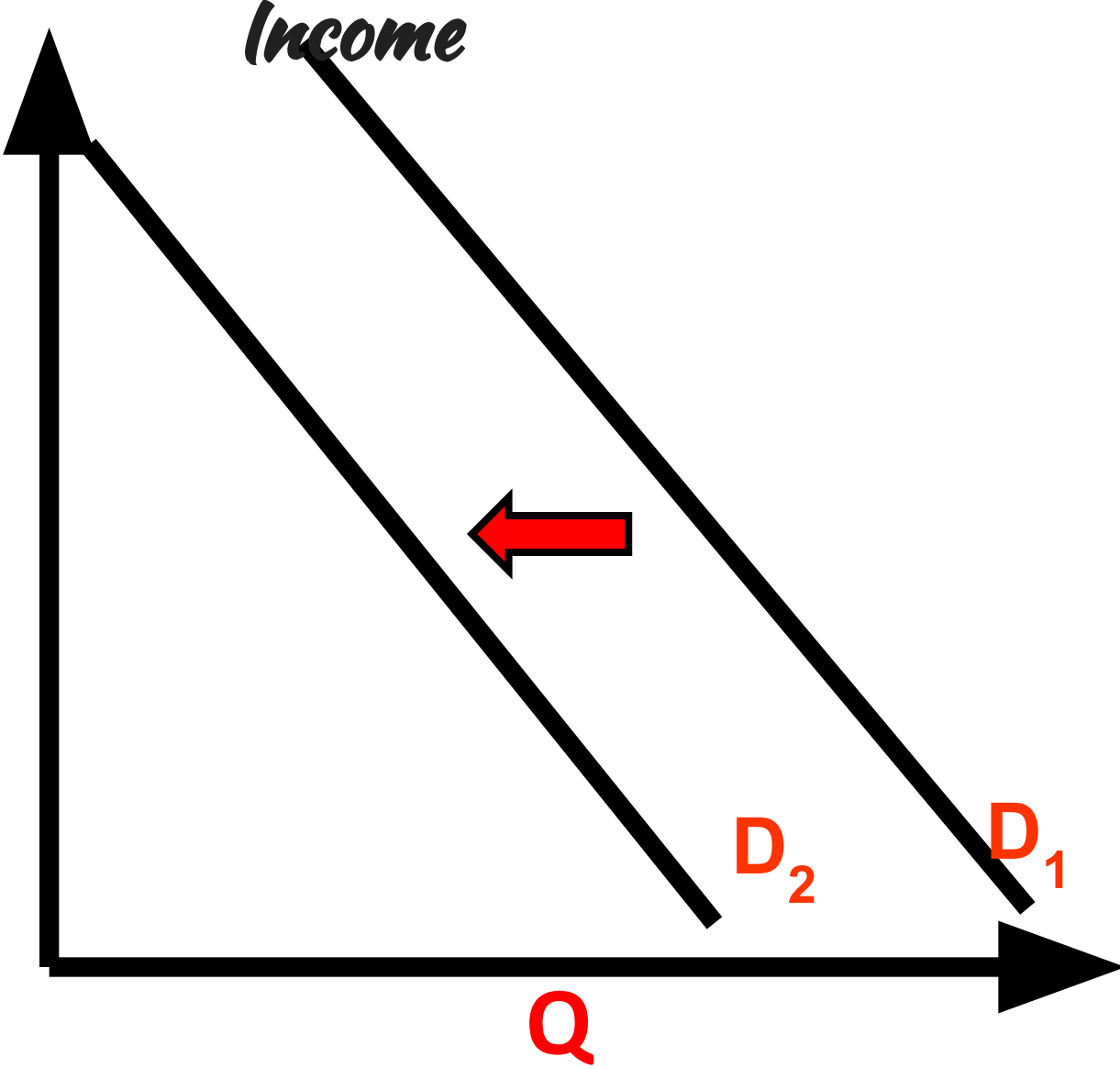
- As a person's income rises, their demand for **NORMAL** goods also rises.
- What about inferior goods?
 - As income rises, demand for **INFERIOR** goods **DECREASES**.



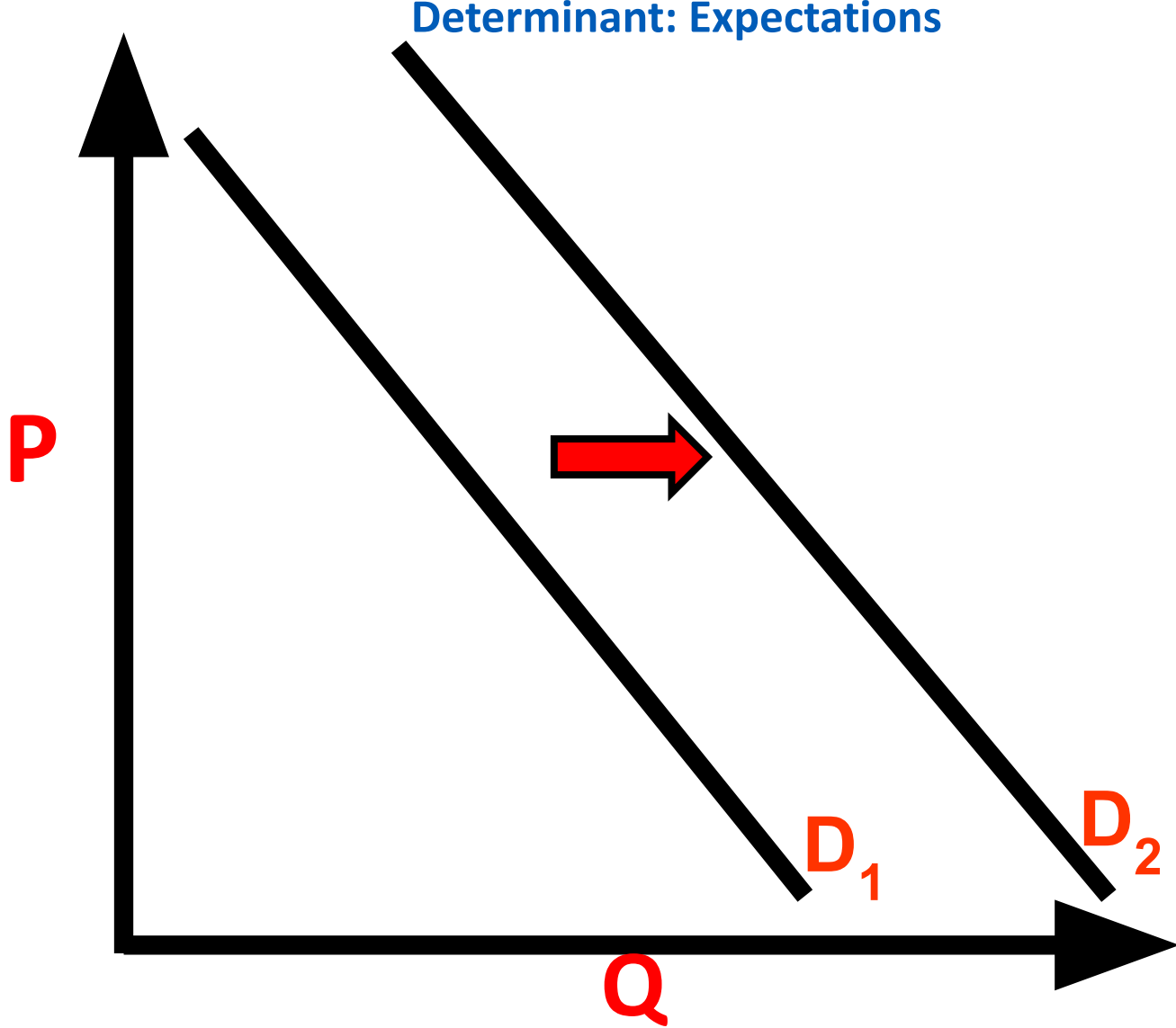
Determinant:

Product: Summer Travel

P



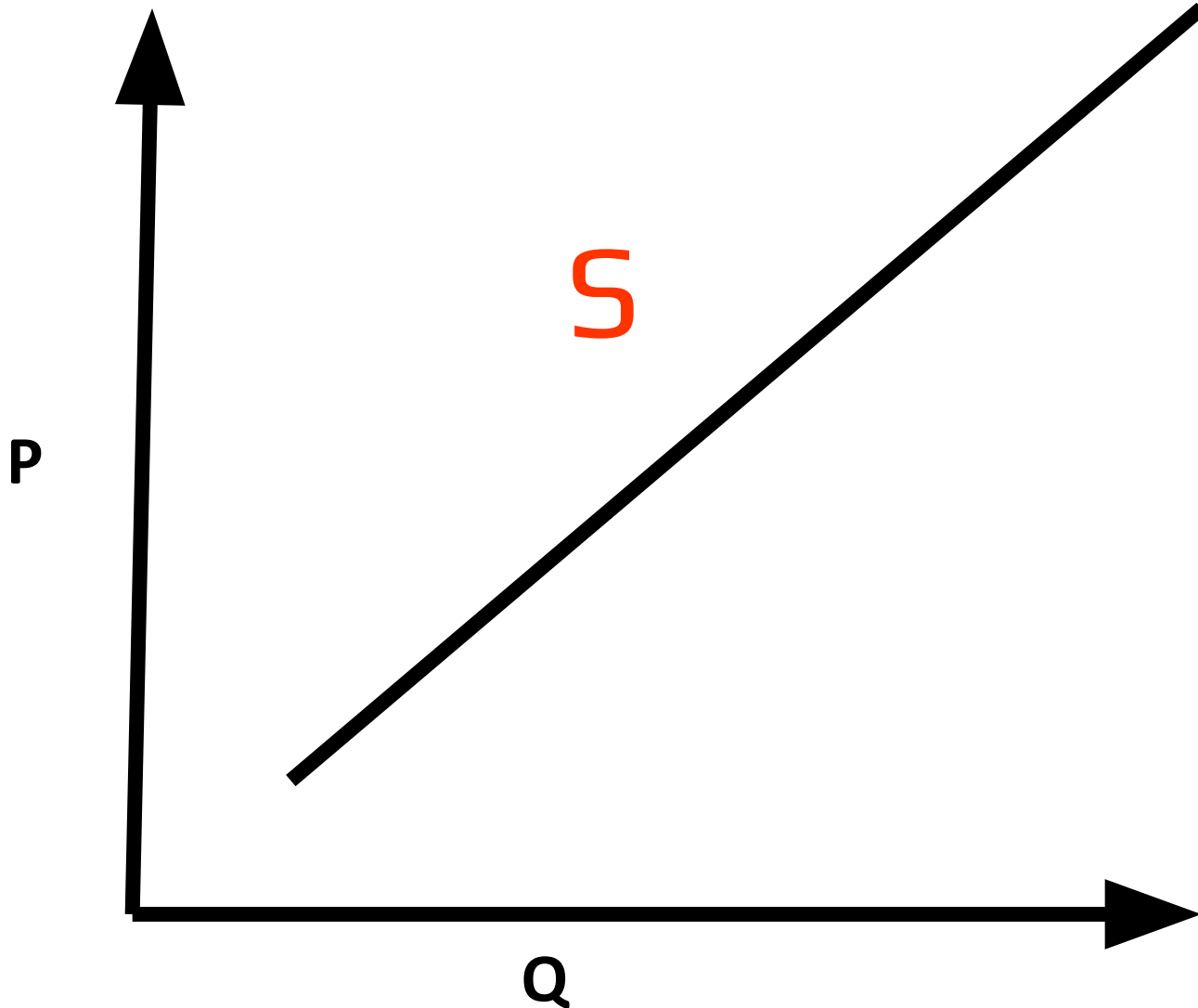
Products: Disinfectants & TP



Demand Cartoons

- Go to [cartoonstock.com](https://www.cartoonstock.com) or any other political cartoon site.
- Find cartoons that illustrate THREE (different) determinants of demand (you should have a total of three cartoons, one for each determinant).
- Copy and paste the cartoon to a Google Slides presentation (one slide per cartoon)
- Show *which* determinant shifts the demand curve and tell what the product is.
- Draw graph to show *how* the demand curve shifts.
- Presentation should be three slides total (one slide for each cartoon, graph, explanation)
- Here are some examples..... (Your product should look very similar to this).

SUPPLY



- **THE LAW OF SUPPLY:** quantity Supplied of a Product Varies **Directly** with Its Price.
- **SUPPLY:** The **Willingness** and **Ability** to Supply a Product at a Given Price.

Difference between a change in supply and quantity supplied

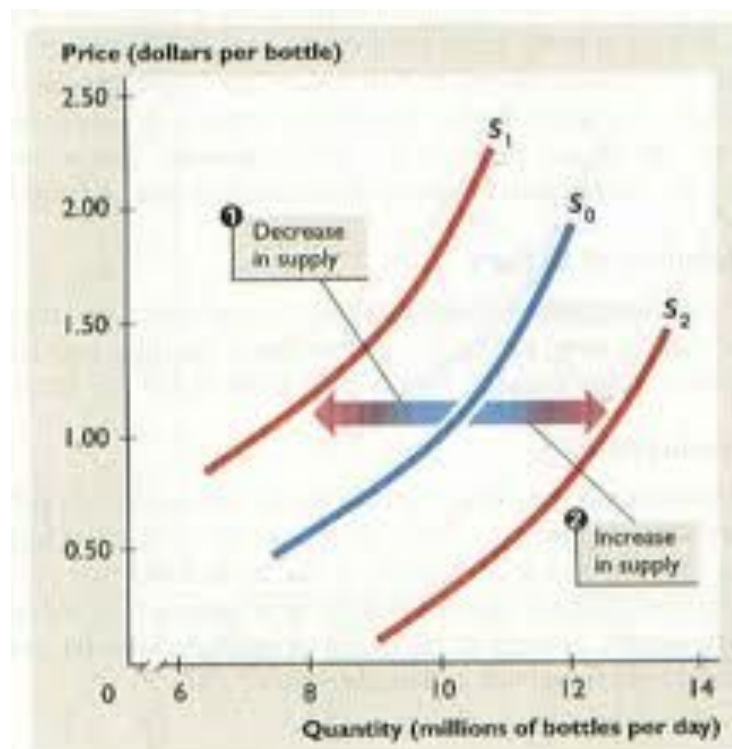
Quantity Supplied

- Only a change in PRICE can alter
- Movement along the SAME supply curve



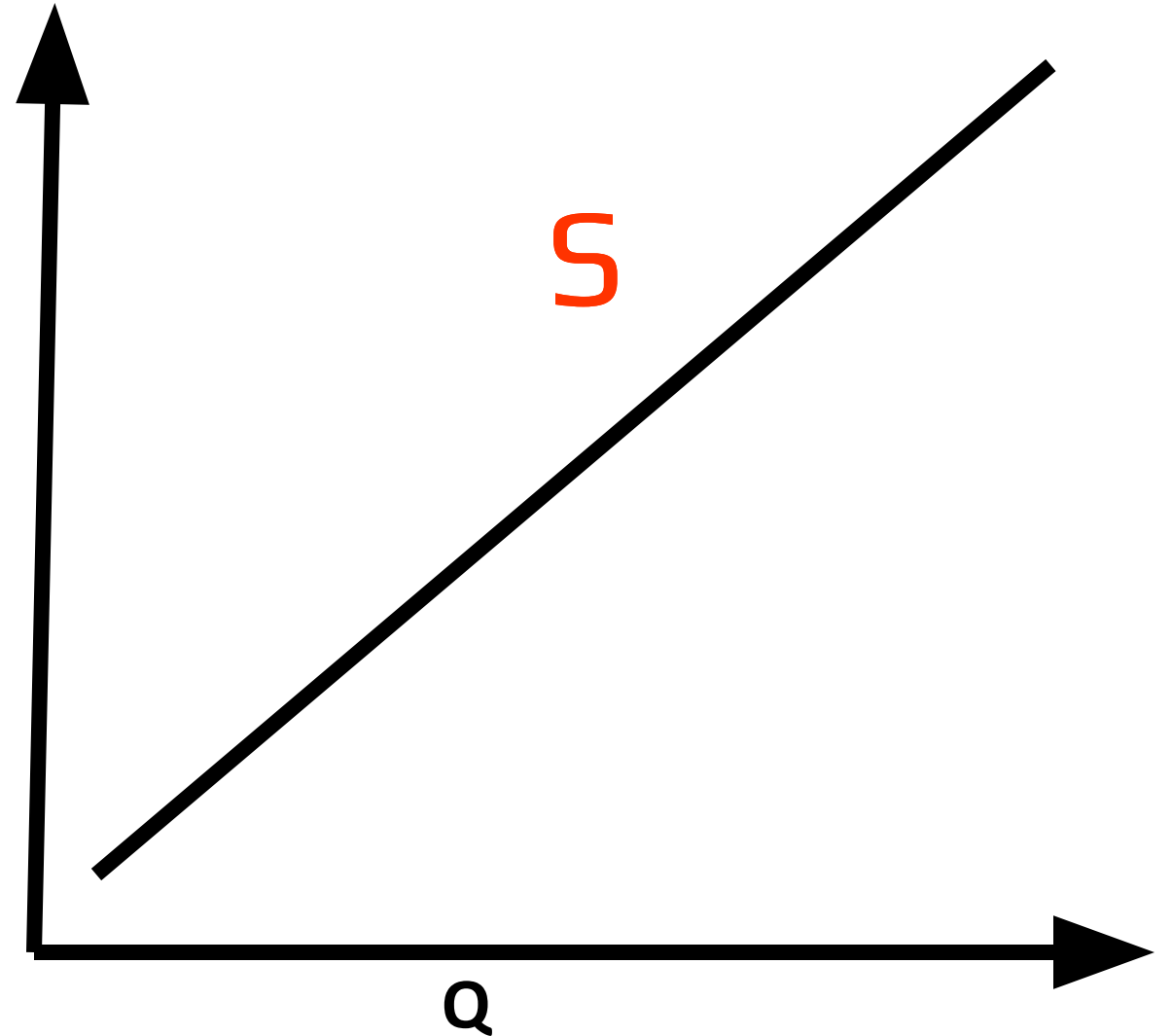
Supply

- outside factor, such as increase in the price of an input, technology
- shifts to a NEW supply curve (to the left or right)



DETERMINANTS OF SUPPLY

- **G**overnment Tools
- **O**ther Goods (& their prices)_p
- **I**nput Prices
- **C**ompetition (# of sellers)
- **E**xpectations
- **T**echnology

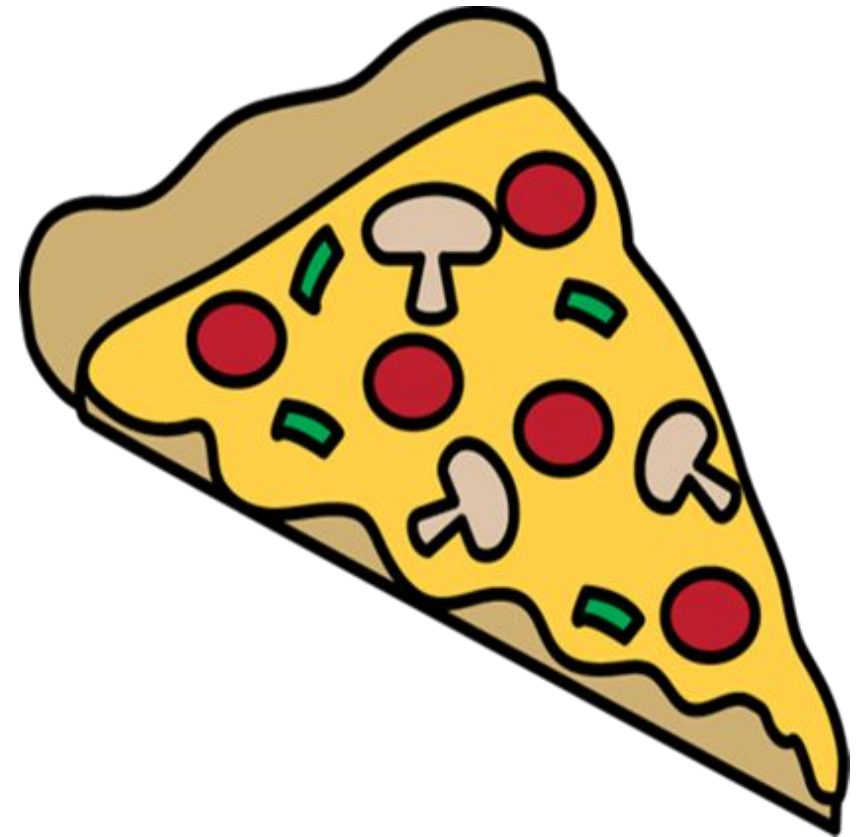


Think of it this way.....

- Any factor that increases the cost of production decreases supply!
- Any factor that decreases the cost of production increases supply!

Supply of Pizza Activity

- You are a producer of pizza.
- Using the chart on the next slide, create two examples for each respective determinant—one example that will increase supply for pizza and one that will cause supply to decrease for pizza.
- Be specific in each of your examples.



Changes in Supply of Pizza

Determinant	Increase in Supply	Decrease in Supply



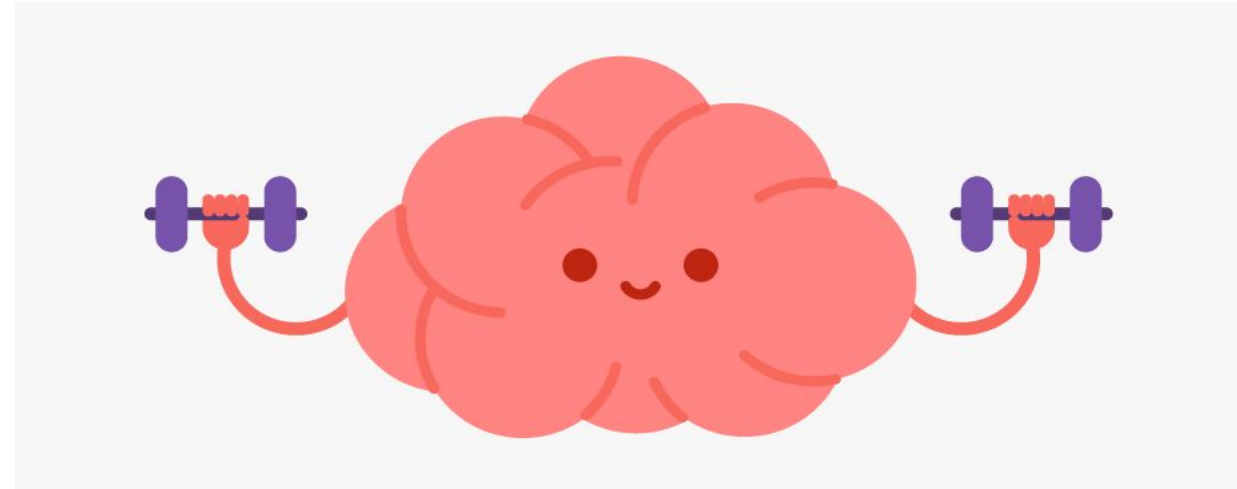
Students, write your response!

Finding Equilibrium - Interactive



Chat Waterfall

- How are prices determined?
- What factors impact pricing?
- Do all goods and services follow these rules?



Simulation Instructions

1. Large Candy
2. Starbursts
3. Assorted DumDums
4. Kitkat

Instructions

- 1) I am a consumer who is willing to buy candy from each of your groups.
- 2) I am willing to pay between 1 and 10 Stiglbucks.
- 3) Your task - set a price between 1 and 10 Stiglbucks and write it on your sticky note.
- 4) Communication? I am also the czarina of the market :)



Debrief Activity

- Which groups had control over pricing?
 - Was this correlated with the number of sellers?
- What were the prevailing prices?
- What types of products were offered in each group?
- Purpose?



Learning Target: I can differentiate the characteristics of different market structures – perfect competition, monopoly, monopolistic competition, and oligopoly.

Market Structures

```
graph TD; A[Market Structures] -.-> B[Perfect Competition]; A -.-> C[Monopolistic Competition]; A -.-> D[Oligopoly]; A -.-> E[Monopoly];
```

Perfect
Competition

Monopolistic
Competition

Oligopoly

Monopoly

Different Types of Market Structures

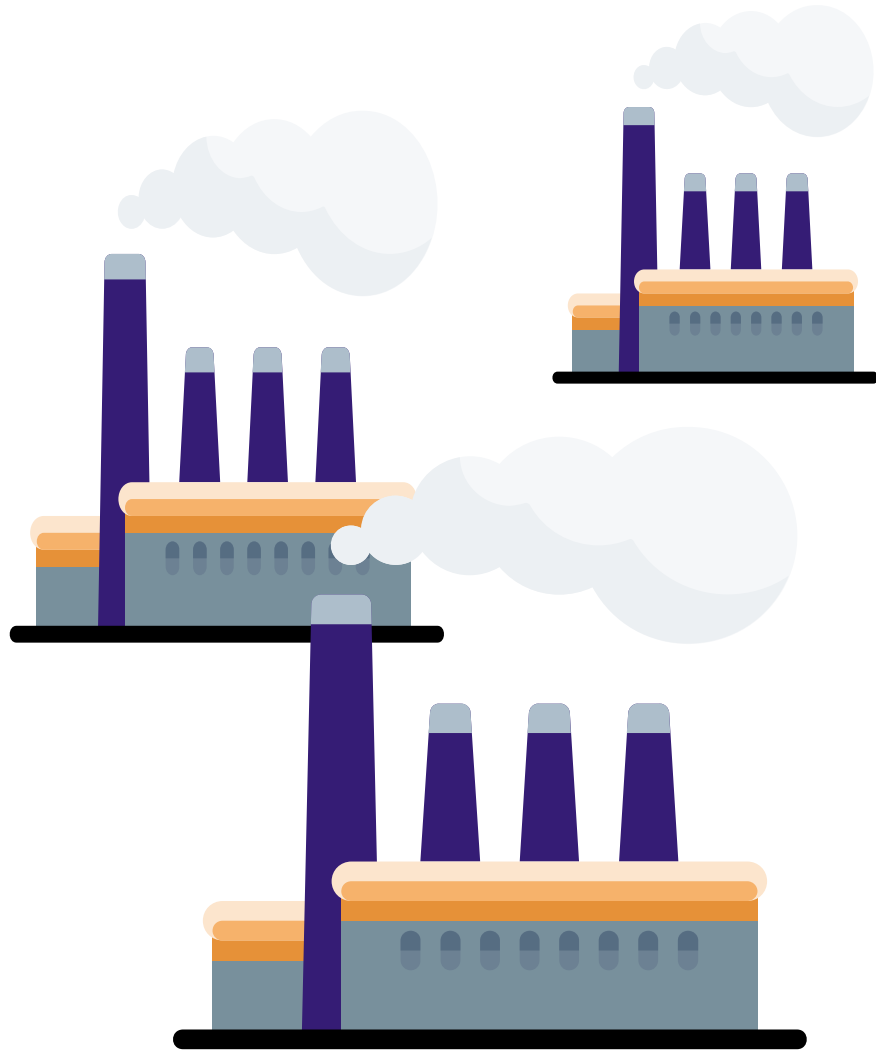
Market Structure	Number of Firms	Differentiated or Homogeneous Product	Ease of Entry	Price-Setting Power	Non-Price Competition	Examples
Perfect Competition						
Monopolistic Competition						
Oligopoly						
Monopoly						

Different Types of Market Structures

Market Structure	Number of Firms	Differentiated or Homogeneous Product	Ease of Entry	Price-Setting Power	Non-Price Competition	Examples
Perfect Competition	Many	Homogeneous	Easy entry and exit	None	None	agricultural products Stock Market
Monopolistic Competition	Many	Differentiated	Easy entry and exit	Some market power	Yes; advertising	Fast Food Industry
Oligopoly	Few	Differentiated or Homogeneous	high barriers to entry and exit	YES; collusion is common	often use advertising, too.	OPEC Cell Phone service providers
Monopoly	One firm	unique product	entry blocked	Total market power (must still abide by demand curve)	not necessary - no competition	Utility companies Standard Oil



- Research businesses that fall into the market structure assigned to you:
- **First name A-G: Monopoly**
- **First name H-N: Oligopoly**
- **First name O - S: Monopolistic competition**
- **First name T-Z: Perfect competition**
- Include a picture of the business or logo on the Padlet with a description of why you classified each business in the market structure you selected.



Cartels & Competition

Economics for Leaders
Activity 3

Lesson Available Online at www.fte.org





Meet Your Team 4 minutes

1. Come up with a Team Name.
Submit in PearDeck.



2. Choose a Captain that will submit your production decisions

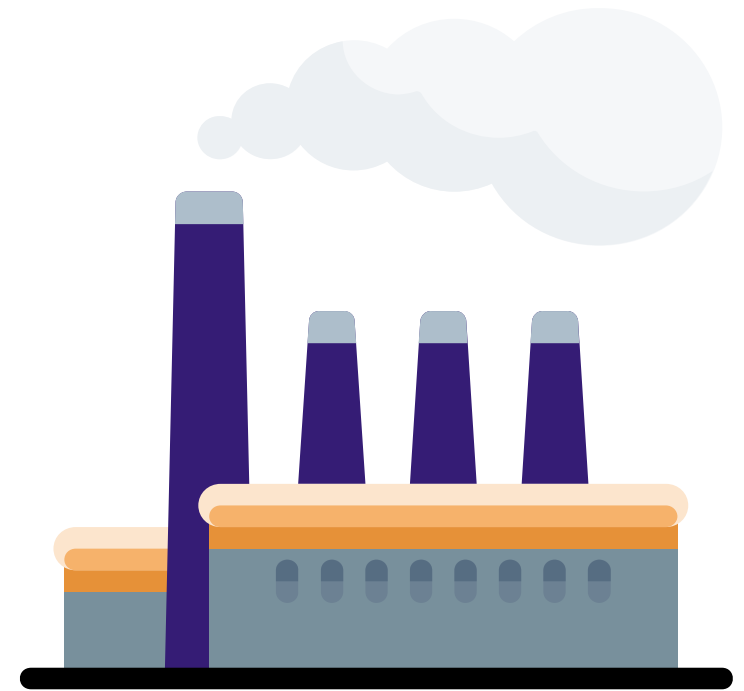
3. Choose an accountant keep the balance sheet.



Students, write your response!

The Producers...

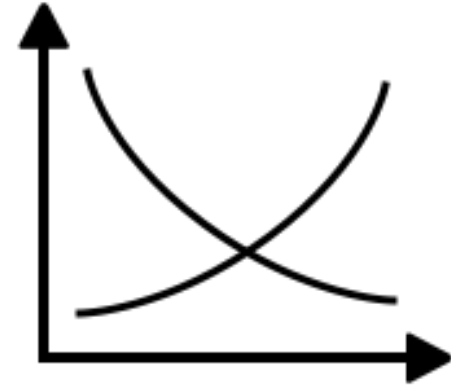
- 6 companies...
- Do 98% of the business in this industry.



The Incentive

- Your goal: make as much profit as possible
- Bragging rights for ALL companies that earn MORE than \$200 profit!
- We will recognize the company that earns the MOST profit!

Directions

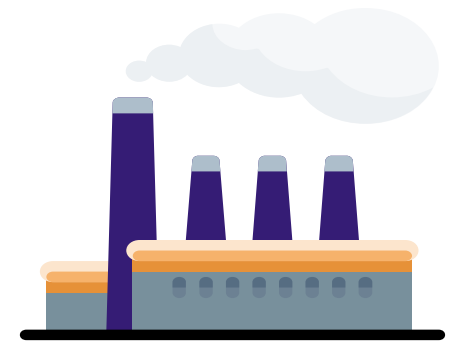
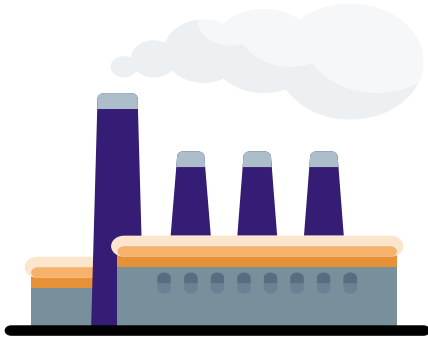


- The interaction of market demand and market supply will determine the market-clearing price, the price at which the units you produce will sell.
- In each round, a forecast of market demand will be displayed. Remember that this is only a forecast, and actual demand may vary from the forecast somewhat.

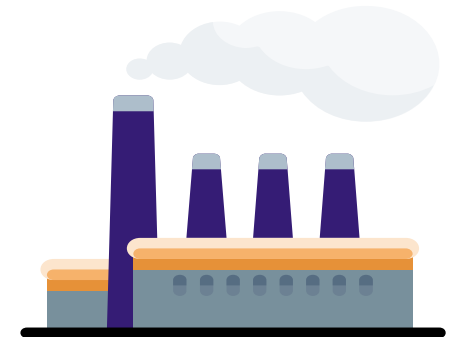
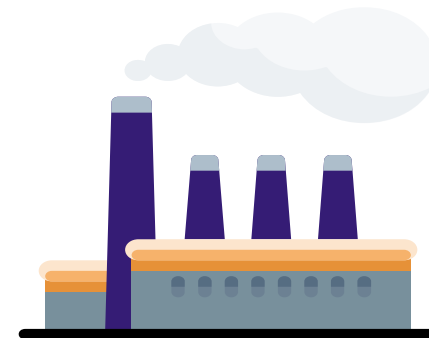
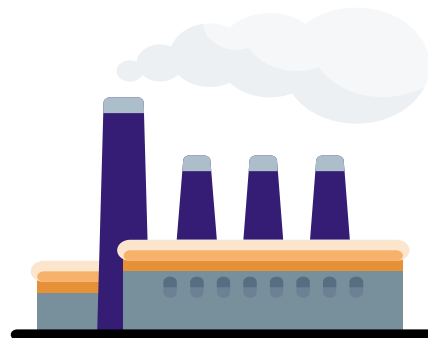
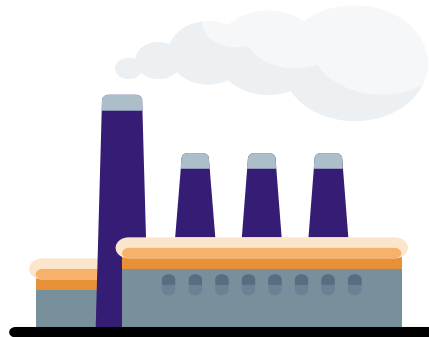
Demand Forecast

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20

Directions



- You will have to make your own forecast, or prediction, of **market supply**. You will know how many units your own company will produce, but the **TOTAL** market supply will include not only your own production, but also that of the other companies in the class.



Example

- If you produce **3 units** and so do all the other companies, the total supply will be **18 units**.
- According to the demand forecast, what will the market price be?

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20

Example (continued)

- Your decision must also take into account your production cost.
- Suppose your cost is \$25 per unit and you sell that unit for \$125:

\$125	total revenue
<u>- \$25</u>	total cost
\$100	profit

Now you try...

Suppose your company produces 3 units, total market supply is 19 units, and your production cost is \$25 per unit.

1. Cost of production x #units produced = Total cost of production.
2. Units sold x price = Total Revenue
3. Total Revenue - Total cost = profit or loss

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20



Students, write your response!

The Production Decision Worksheet

Team #: _____
 Team Name: _____



Balance Sheet "Cartels & Competition"

Round 1	Beginning Balance	=	\$150
	Subtract Production Costs	-	
	Subtotal	=	
	Add Revenue from Sales	+	
	Balance after Round 1	=	

Round 2	Beginning Balance (from end of Round 1)	=	
	Subtract Production Costs	-	
	Subtotal	=	
	Add Revenue from Sales	+	
	Balance after Round 1	=	

Round 3	Beginning Balance (from end of Round 1)	=	
	Subtract Production Costs	-	
	Subtotal	=	
	Add Revenue from Sales	+	
	Balance after Round 1	=	

Round 4	Beginning Balance (from end of Round 1)	=	
	Subtract Production Costs	-	
	Subtotal	=	

Production Decision Worksheet

- Notice Balance is \$150 to start.
- What must your balance be at the end to have \$200 profit?

Team #: _____
Team Name: _____



Balance Sheet "Cartels & Competition"

Round 1	Beginning Balance		\$150
	Subtract Production Costs	-	
	Subtotal	=	
	Add Revenue from Sales	+	
	Balance after Round 1	=	

Round 2	Beginning Balance (from end of Round 1)		
	Subtract Production Costs	-	
	Subtotal	=	
	Add Revenue from Sales	+	

Production Costs

- You must pay your production costs up front (from your balance).
- Production costs for all rounds will be **\$30**.
- What is the **most** any team could produce in round 1?

Team #:

Team Name:



Balance Sheet "Cartels & Competition"

Round 1	Beginning Balance		\$150
	Subtract Production Costs	-	
	Subtotal	=	
	Add Revenue from Sales	+	
	Balance after Round 1	=	

Round 2	Beginning Balance (from end of Round 1)		
	Subtract Production Costs	-	
	Subtotal	=	
	Add Revenue from Sales	+	



Students, enter a number!

Pear Deck Interactive Slide
Do not remove this bar

Round 1

- Make your production decisions.
- Submit in PearDeck

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20



Students, write your response!

Round 1 Results

- Market supply is.....
- So price is.....

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20

Round 1 Results

Team #: _____
Team Name: _____



- When you return to breakout rooms.
- Calculate your revenue from Round 1 sales. (price x # produced)
- Calculate your new balance going into Round 2.
- Questions?

Balance Sheet "Cartels & Competition"

Round 1	Beginning Balance		\$150
	Subtract Production Costs	-	
	Subtotal	=	
	Add Revenue from Sales	+	
	Balance after Round 1	=	

Round 2	Beginning Balance (from end of Round 1)		
	Subtract Production Costs	-	
	Subtotal	=	
	Add Revenue from Sales	+	

Round 2

- Calculate your revenue from Round 1 sales.
(price x # produced)
- Calculate your new balance going into Round 2.
- Make production decision for Round 2. Submit in PearDeck.

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20



Students, write your response!

Round 2 Results

- Market supply is.....
- So price is.....
- Update Balance Sheet back in break-out rooms

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20

Round 3

- Update Balance Sheet.
- Discuss production decision for Round 3.
- Submit production decisions in PearDeck.

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
	\$



Students, write your response!

Round 3

Exciting News!

- Trade Convention for Industry Executives.
- Each company can send 1 person (does not have to be team captain)

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20

Round 3

Executives Returning....

- Make production decision for Round 3.
- Submit in PearDeck.

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25



Students, write your response!

Round 3 Results

- Market supply is.....
- So price is.....
- Questions?

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20

Next Round

- Update Balance Sheet.
- Discuss production decision.

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20

Next Round

Trade Convention!

- Trade Convention for Industry Executives.
- Each company can send 1 person (does not have to be team captain)
- Production decisions will not be made until they return.

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20

Next Round

Executives Returning....

- Make production decision.
- Submit in PearDeck

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20



Students, write your response!

Results

- Market supply is.....
- So price is.....
- Questions?

Market Demand (QD)	Price
0-6	\$125
7-13	\$100
14-19	\$75
20-26	\$50
27-32	\$30
33-40	\$25
41-50	\$20

Calculate your profits

Profit = Current Balance - \$150 (your starting balance)

Debrief

- What happened?
- Why did you want to talk to the other companies?
- Did it work?
- What motivated you to collude?
- What motivated you to cheat on that collusive agreement?

Debrief

- Whose voice isn't represented in this conversation?
 - Consumers!
- How would consumers they perceive this outcome?
- People respond to incentives...
 - Buyers, sellers, business executives... even high school students!
- There's an incentive to collude.

Debrief

- What would be the impact of laws or rules that enforce cooperation among producers?
 - EX: licensing requirements for doctors, teachers, hairdressers, taxicabs; or regulatory agencies etc.
- What would be the impact of laws or rules that prohibit cooperation among producers?

Conclusion

- Incentives matter.
- Desire for **profit** and **competition** undermine collusive agreements.



Profit is the
motivator.
Competition is the
regulator.

GimKit - Wrap Up & Assessment



Gimkit





Summer Institute: Microeconomics

Presented by: Amanda Stiglbauer

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Date: July 17, 2023



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FinEd50 is a coalition of non-profit organizations, researchers, corporate partners, and professional organizations that believes that personal finance education is a crucial tool to helping people better navigate their financial lives, make informed decisions regarding their life choices, and take more control over their own futures.

FinEd50: Financial Education for American

Currently, only 24 states require personal finance education courses in the United States. Research indicates that a quality financial education leads to improved future credit scores, declines in payday lending, student loan payment increases, student borrowing shifting to lower cost options, and overall financial well-being!

Recognizing that education is the realm of state and local leadership, FinEd50 is dedicated to achieving:

State Level Action: State-level action that guarantees equitable access for every student to a robust, high-quality personal finance course;

National Standards: Courses and educational materials that address the content outlined in National Standards for Personal Financial Education and are culturally relevant and respectful to students' lived experiences;

Innovative Funding: Innovative funding mechanisms and professional development in place to support and develop a corps of high-quality teachers with access to new professional development opportunities to teach personal finance; and

Measurement: A mechanism for measuring access to courses on personal finance and equitable reach of state requirements.

Learn more about FinEd50:

Advocacy

CEE Affiliates



A network of 200 nationwide affiliates

Provide professional development for K-12 teachers, advocate for including economics and personal finance in K-12 schools, conduct research, and forge partnerships.

<https://www.councilforeconed.org/resources/local-affiliates/>

Include your local affiliate page

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