Warm Up:

On Today’s Meet, give a possible way of reaching U.

Productivity

the relationship of input to output

How would we know we increased our productivity?

Productivity Simulation

Making a Quiz Book

Requirements:
- 14 pages
- “Quiz Book” on cover
- Name of company on cover
- Even pages numbered 2-14
- Paper clip on corner

Round 1 - Each person in a bookmaker.

You may share capital goods but not labor.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Round 1</th>
<th>Round 2</th>
<th>Round 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of workers</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages ($1 per worker)</td>
<td>4.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rent for factory (desk)</td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital goods (number of pens)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment in capital goods ($0.50 per pen)</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of accepted books</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of materials ($0.25 per accepted book)</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total cost of accepted books (Wages line 2) + rent (line 3) + investment in capital goods (line 5) + materials cost (line 7)</td>
<td>7.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average cost per accepted book</td>
<td>(Total cost line 8) / (accepted books line 6)</td>
<td>1.88</td>
<td></td>
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<tr>
<td>Productivity: output per worker in 5 minutes / accepted books (line 6) / number of workers (line 1)</td>
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Round 2: Division of Labor and Specialization

Sep 5-8:05 AM
Round 3: Additional Capital Goods

Discussion:
- What made us more productive?
- Why were some groups more productive than others?
- Could there be other explanations for the increase in production?

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- What made us more productive?
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- Could there be other explanations for the increase in producivity?
8. What are the advantages and disadvantages of specialization and division of labor?

9. What other things could the book companies have done to increase their productivity?

10. What things should the company consider before investing in capital resources such as a paper cutter?

11. What is the opportunity cost of a firm’s decision to invest in capital?

12. Why would it be important for a nation to increase productivity?

Why does productivity matter?

Socrative Exit Ticket:
Explain why increasing productivity is essential in an economy.

Warm Up:
1) Define productivity.
2) Identify three ways countries can increase productivity.
3) What does an increase in productivity do to a country’s Production Possibilities Curve?
4) What is meant by “standard of living”?
5) How is productivity related to standard of living?

EQ: How do we increase productivity and wealth in the overall economy when everyone is not equally productive?

Comparative Advantage

The Problem: Resources are unevenly distributed:

Land: US has lots of natural resources/ Japan has very few.

Labor: China has a large workforce/ Germany’s workforce is aging and declining.

Physical Capital: US has abundant machinery and technology / Somalia has very little.

Human Capital: US has an educated population/ Most developing countries have little educational opportunity.

Entrepreneurship: In the US, you have lots of people willing to take risks and start businesses. In developing countries, would-be entrepreneurs cannot get the money to start up, even when they only need a micro-loan of $100.
**What’s the solution?**

**ABSOLUTE ADVANTAGE**

Who has the absolute advantage?

**COMPARATIVE ADVANTAGE**

Who has the comparative advantage?

**Tires Changes per hour | Oil Changes per hour**

<table>
<thead>
<tr>
<th></th>
<th>Tires Changes per hour</th>
<th>Oil Changes per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ricky</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Bobby</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

Who should specialize where???

**ANOTHER EXAMPLE**

<table>
<thead>
<tr>
<th></th>
<th>Jelly Fish Caught per Hour</th>
<th>Crabby Patties Made per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPONGE BOB</td>
<td>50</td>
<td>65</td>
</tr>
<tr>
<td>PATRICK</td>
<td>30</td>
<td>50</td>
</tr>
</tbody>
</table>

Closing:
Sarah is a lawyer who can charge about $350 per hour. She is also an accomplished typist, capable of typing about 85 words per minute. Sarah is considering hiring Jill as a secretary to do all of her word processing. Jill is capable of typing only 35 words per minute, and would be paid approximately $11 per hour.

Should Sarah hire Jill???
Warm Up:
1) What does it mean to have the absolute advantage?
2) What does it mean to have the comparative advantage?
3) Explain the connection between specialization, comparative advantage, trade, and productivity.
4) Review Sarah and Jill problem.

<table>
<thead>
<tr>
<th>BERT and BETSY</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dishwashing (sink loads per hour)</td>
<td>Sweeping (trash loads per hour)</td>
<td></td>
</tr>
<tr>
<td>Betsy</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Bert</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Remember this example? How is this an example of exploiting comparative advantage?

Closing:
- What is comparative advantage?
- How does it relate to specialization and trade?
- How does it relate to productivity?