Creating a production strategy: Midd Biking and Typing, Inc.  
September 23, 2015

Name: _______________________  Group: ________________________

How many miles can you bike in one hour?  
________________________

How many double-spaced pages can you type in one hour?  
________________________

Collect similar data from your co-producers:

<table>
<thead>
<tr>
<th>PERSON</th>
<th>MILES</th>
<th>PAGES</th>
<th>RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOU</td>
<td>8</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Juan</td>
<td>6</td>
<td>10</td>
<td>0.6</td>
</tr>
<tr>
<td>Emily</td>
<td>5</td>
<td>15</td>
<td>0.33</td>
</tr>
<tr>
<td>Pascale</td>
<td>12</td>
<td>6</td>
<td>2.0</td>
</tr>
<tr>
<td>Susan</td>
<td>8</td>
<td>8</td>
<td>1.0</td>
</tr>
<tr>
<td>James</td>
<td>10</td>
<td>2.5</td>
<td>4.0</td>
</tr>
</tbody>
</table>
Title of graph: Production Possibilities Frontier: Team 155

MILES per hour

1. How many PAGES can your team type per hour? Plot that point.

   Add up totals → 45.5 pages. Point is (45.5, 0)

2. How many MILES can your team bike per hour? Plot that point.

   Add up totals → 49 miles. Point is (0, 49)

3. If your team wanted to move from producing nothing but MILES to a small amount of PAGES, who would be the first person to switch production from MILES to PAGES? Why that person? Plot the new production point on your graph.
You would want to minimize the opportunity cost associated with starting to produce PAGES. To do so, you would pick the person with the comparative advantage in producing PAGES, which is the person with the lowest ratio of MILES/PAGES → EMILY, whose ratio is 0.33. So the new point would be $(15, 44)$.

4. If your team continues to move toward production of PAGES, plot the next three (or four) production points on your graph. How do you determine who should be the next producer?

   You would want to continue to minimize costs among the set of workers that remain, using the ratio – as opportunity cost – as the guide. Thus, the order after Emily would be Juan (0.6), Susan (1.0), Pascale and then YOU (both at 2.0) – or the other way around – followed by James (4.0).

5. After you have created your graph, what (if any) is the optimal production point for your team? Justify for answer.

   We don’t know. That will depend on consumer demand.

6. What is it that you and your team have created with this exercise?

   A model!