

# Economics of Competition, Monopoly, and Market Power

Antitrust Eric E. Johnson ericejohnson.com

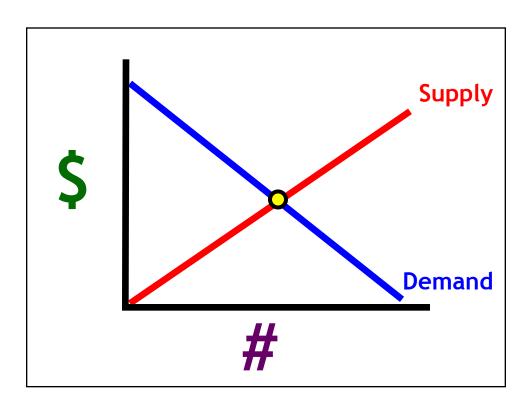


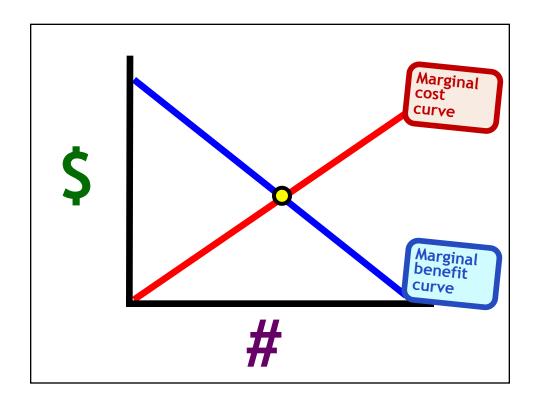
# Thoughts on POE Ch. 8

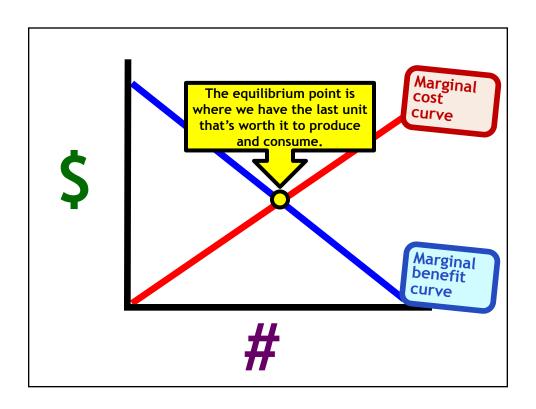
- In Ch. 8, once again, we're "overlearning" the economics ...
- but this material will help us understand what's at stake with antitrust law.
- It's a necessary building block for monopoly economics.
- Combined with the concepts of monopoly economics, the Ch. 8 material will help us understand market power, dominant firms, oligopoly, etc.

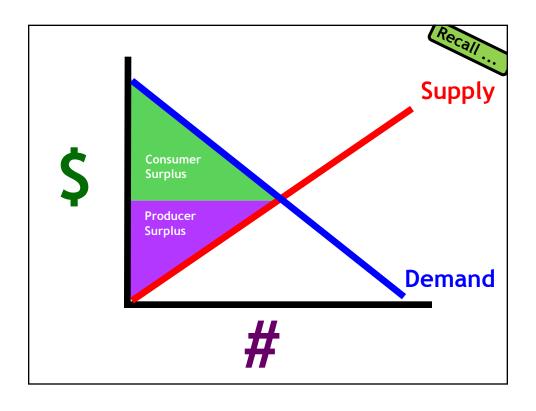
## Thoughts on POE Ch. 9

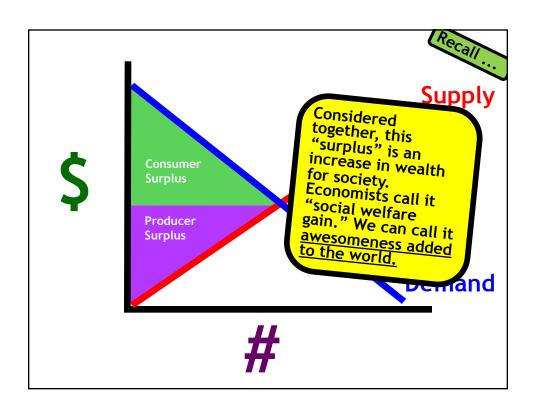
- With previous chapters in POE, I said we were "overlearning" the economics ...
- That's still true in large part with Ch. 9, but Ch. 9 is also underlearning content at the same time.
- It's still true that we care more about conceptual understanding than math. But Ch. 9is heavy on conceptual material, and when it comes to that, this chapter glosses over a lot that is important.
- I'm not going to go through the chapter and exhaustively point out perilous gloss and places needing caveats and nuance ...
- just remember that it's about giving us an introductory framework, and, in particular,
- don't use this chapter as a source for any statement about the law!

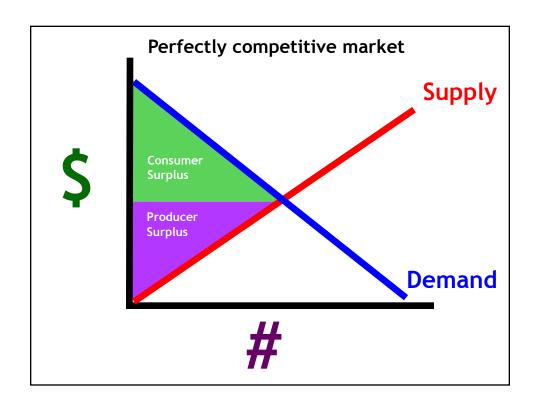


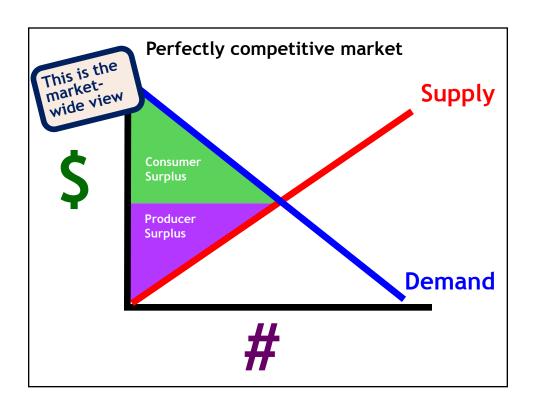


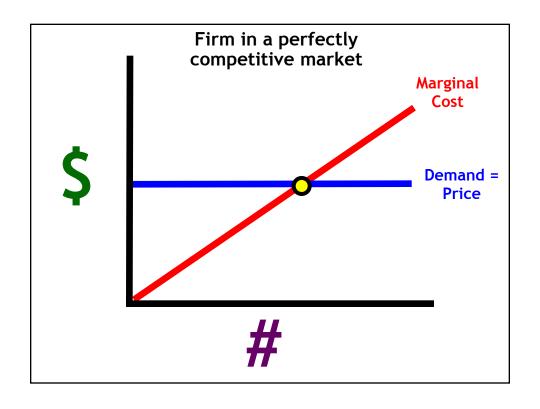


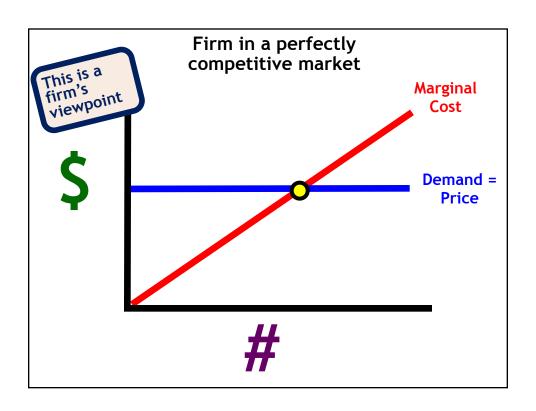


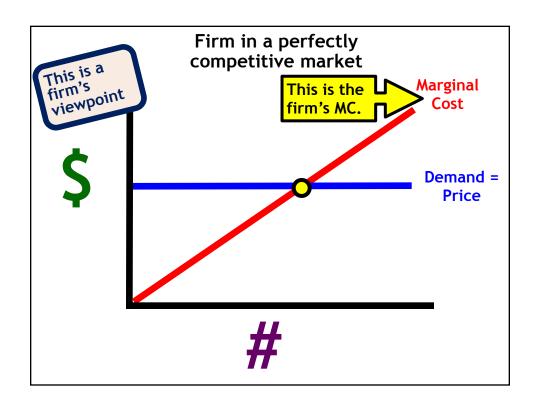


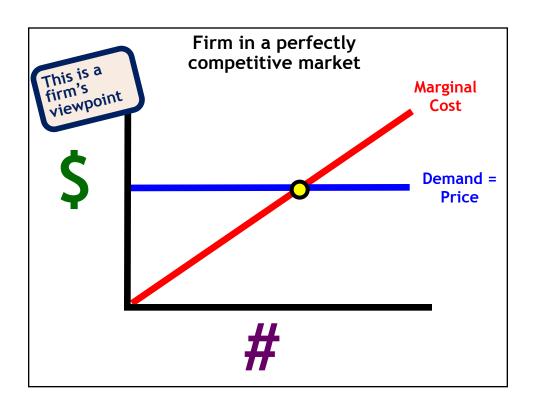


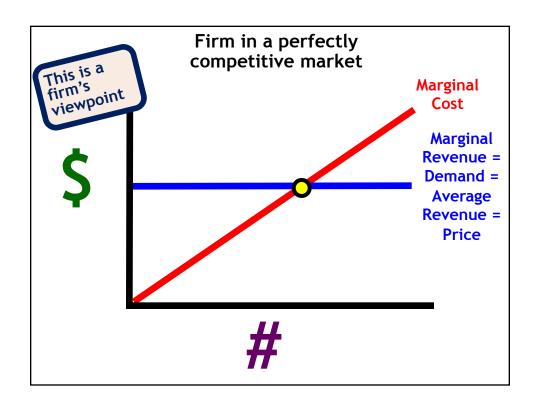


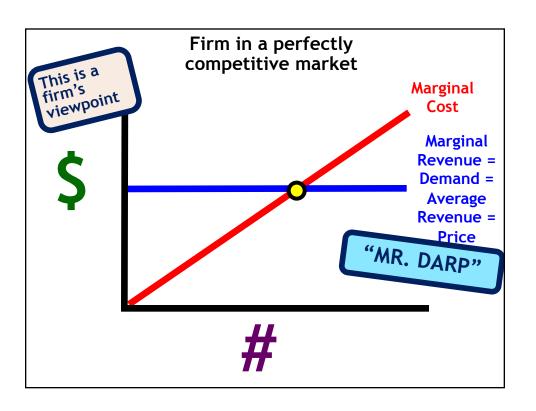


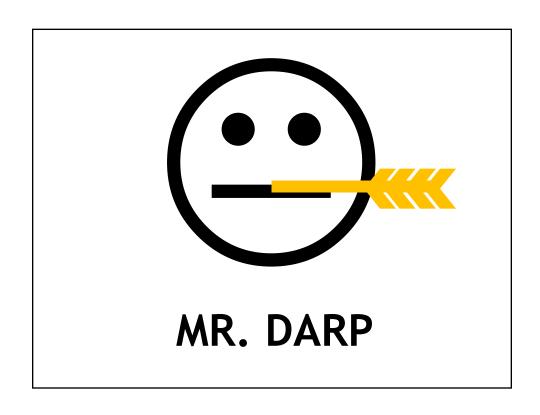


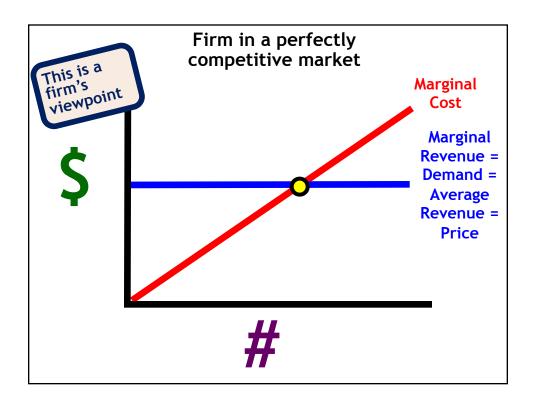


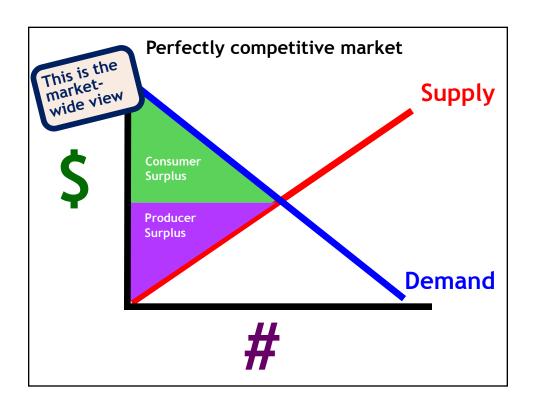


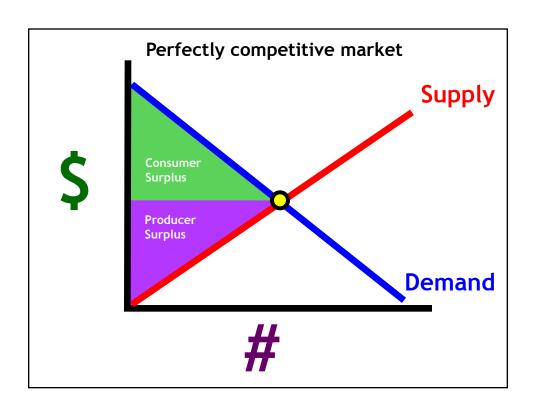












# Review Problems for Ch. 8

Similar to self-check questions ...

Review Problems

1. If you sell products in a perfectly competitive market, would you lower your price in order to sell more units?

Similar to self-check questions ...

Review Problems

1. If you sell products in a perfectly competitive market, would you lower your price in order to sell more units?

No, because then you would still sell the same number of units, because from the perspective of a firm in a perfectly competitive market, demand is perfectly elastic. The market will take as much as you provide as long as it's not above the market price. Selling below market won't increase your sales volume, it will just leave money on the table.

Similar to self-check questions ...

Review Problems

2. Would sales of concrete sand to the construction industry fit the characteristics of a perfectly competitive market?

Similar to self-check questions ...

Review Problems

2. Would sales of concrete sand to the construction industry fit the characteristics of a perfectly competitive market?

Similar to self-check questions ...

Review Problems

2. Would sales of concrete sand to the construction industry fit the characteristics of a perfectly competitive market?

It would probably be pretty close. Why pay over the market price for sand that's going to be mixed into concrete?

Similar to self-check questions ...

Review Problems

3. What about the retail market for gasoline - does that fit the characteristics of a perfectly competitive market?

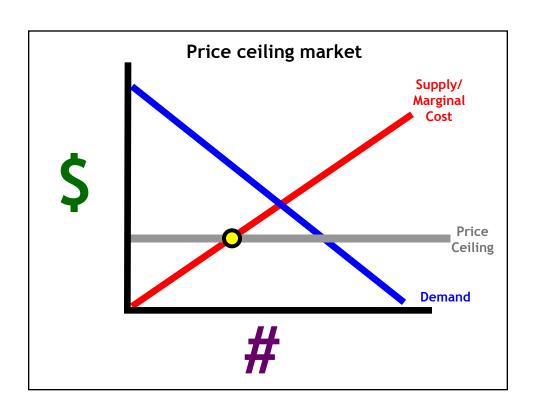
Similar to self-check questions ...

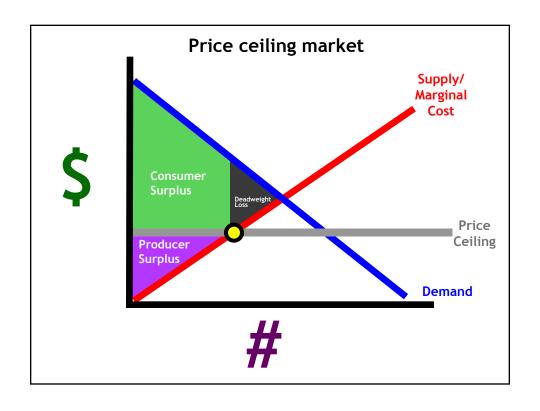
Review Problems

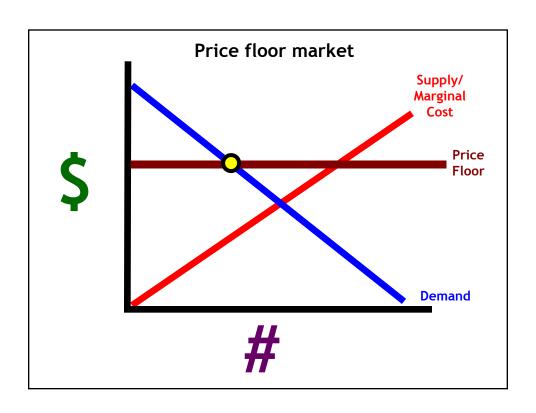
3. What about the retail market for gasoline - does that fit the characteristics of a perfectly competitive market?

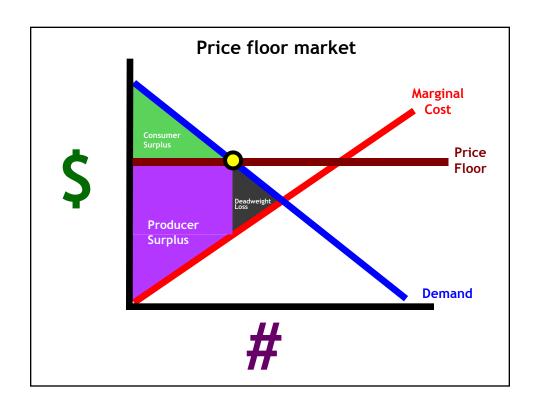
My answer would be apparently not so much, because if I drive around town, I see that gas prices vary. That must have to do with the convenience of the location mostly, but perhaps other things as well, such as the cleanliness of restrooms, credit terms, or loyalty programs.

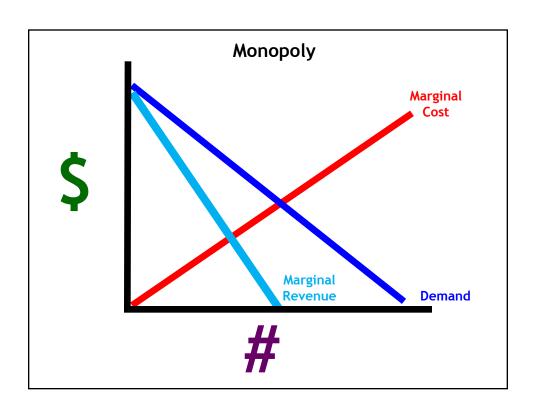
# Let's go over the assigned review problems out of the book for Ch. 8.

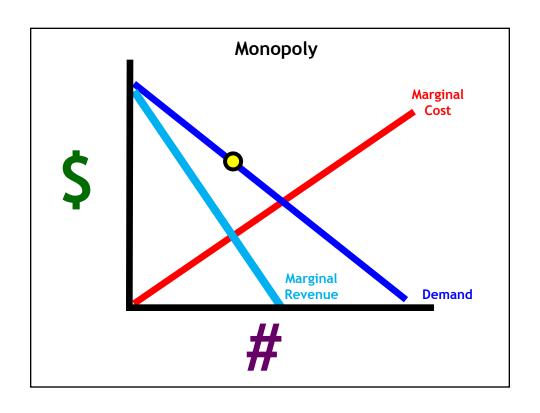


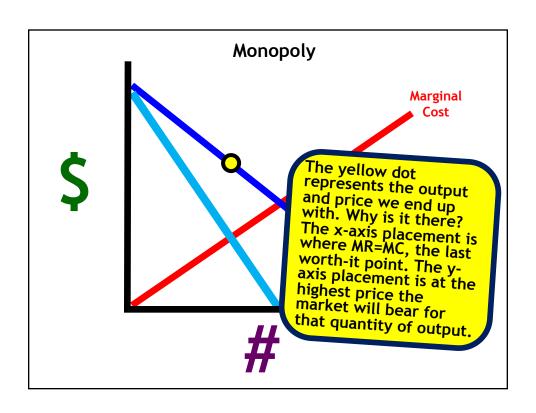


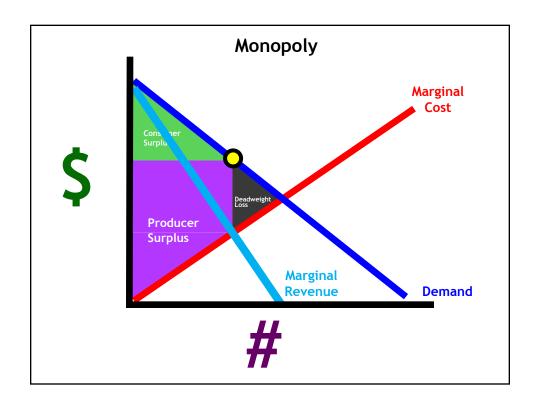


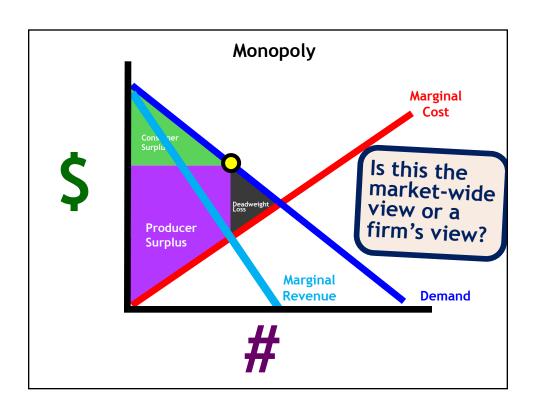


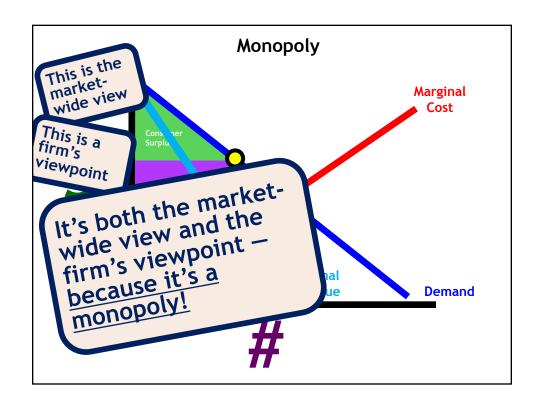


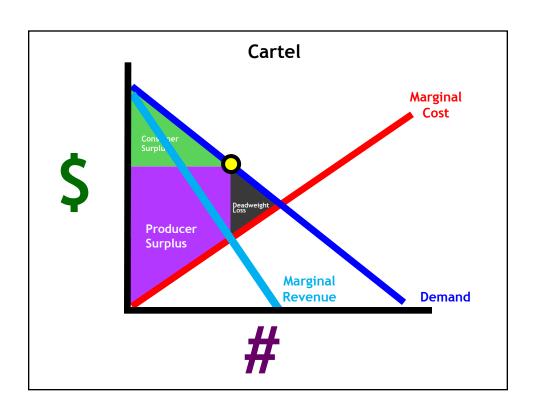


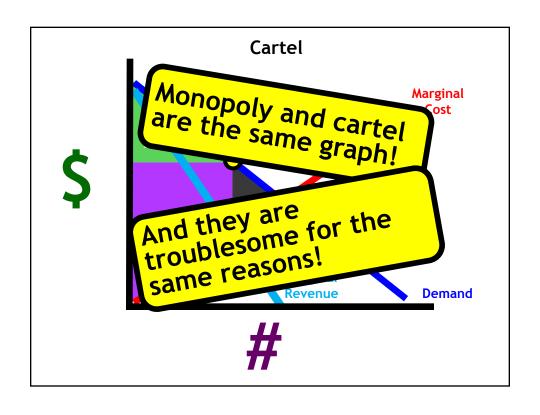


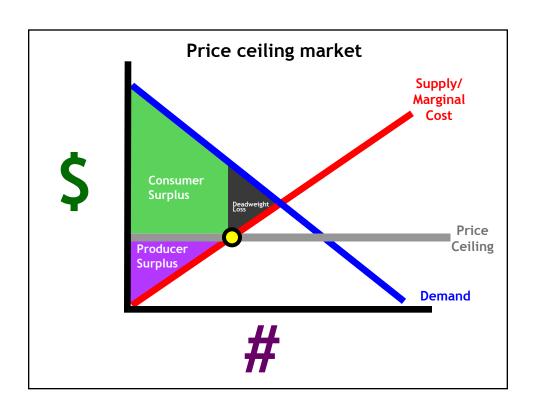


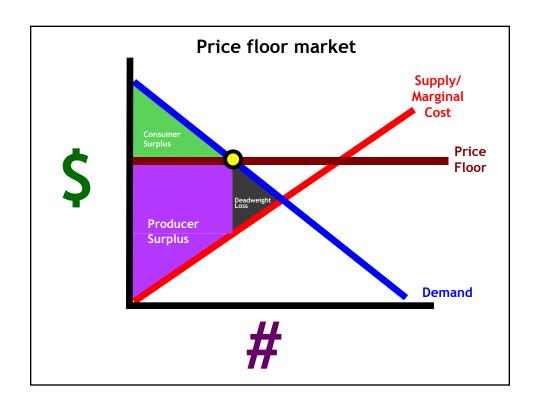


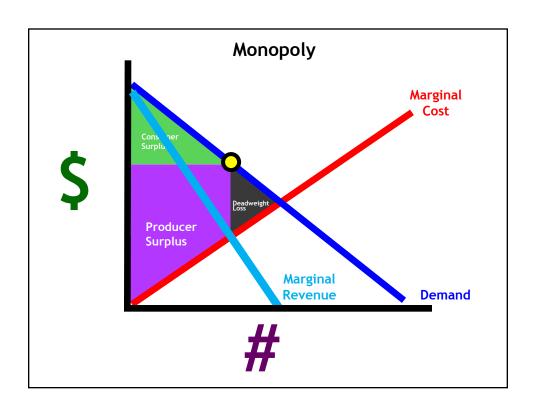


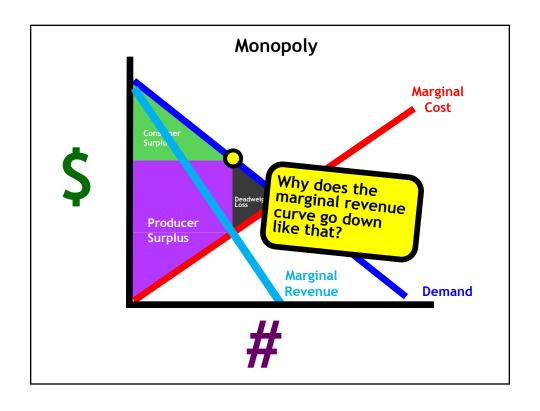


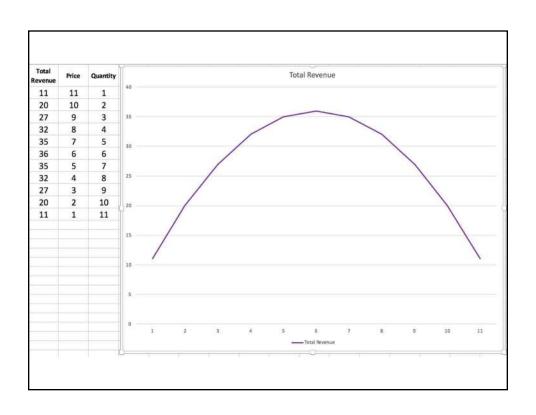


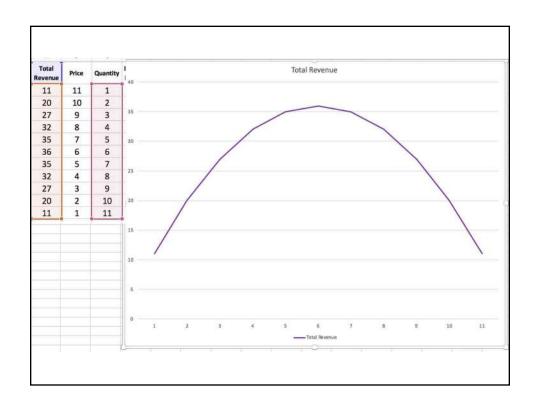


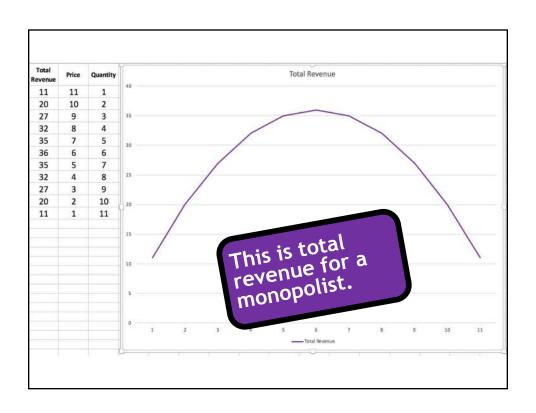


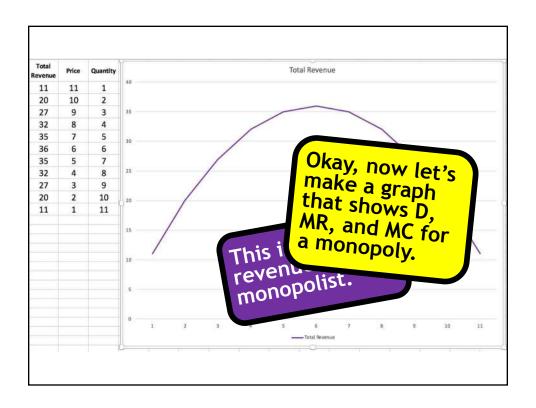












|    | Α                | В     | С        | D                   | E |
|----|------------------|-------|----------|---------------------|---|
| 1  | Total<br>Revenue | Price | Quantity | Marginal<br>Revenue |   |
| 2  | 11               | 11    | 1        |                     |   |
| 3  | 20               | 10    | 2        |                     |   |
| 4  | 27               | 9     | 3        |                     |   |
| 5  | 32               | 8     | 4        |                     |   |
| 6  | 35               | 7     | 5        |                     |   |
| 7  | 36               | 6     | 6        |                     |   |
| 8  | 35               | 5     | 7        |                     |   |
| 9  | 32               | 4     | 8        |                     |   |
| 10 | 27               | 3     | 9        |                     |   |
| 11 | 20               | 2     | 10       |                     |   |
| 12 | 11               | 1     | 11       |                     |   |
| 13 |                  |       |          |                     |   |

|    | Α                | В     | С        | D                   | E |
|----|------------------|-------|----------|---------------------|---|
| 1  | Total<br>Revenue | Price | Quantity | Marginal<br>Revenue |   |
| 2  | 11               | 11    | 1        | =B2                 |   |
| 3  | 20               | 10    | 2        |                     |   |
| 4  | 27               | 9     | 3        |                     |   |
| 5  | 32               | 8     | 4        |                     |   |
| 6  | 35               | 7     | 5        |                     |   |
| 7  | 36               | 6     | 6        |                     |   |
| 8  | 35               | 5     | 7        |                     |   |
| 9  | 32               | 4     | 8        |                     |   |
| 10 | 27               | 3     | 9        |                     |   |
| 11 | 20               | 2     | 10       |                     |   |
| 12 | 11               | 1     | 11       |                     |   |
| 13 |                  |       |          |                     |   |

|    | A                | В     | С        | D                   | E |
|----|------------------|-------|----------|---------------------|---|
| 1  | Total<br>Revenue | Price | Quantity | Marginal<br>Revenue |   |
| 2  | 11               | 11    | 1        | 11                  |   |
| 3  | 20               | 10    | 2        |                     |   |
| 4  | 27               | 9     | 3        |                     |   |
| 5  | 32               | 8     | 4        |                     |   |
| 6  | 35               | 7     | 5        |                     |   |
| 7  | 36               | 6     | 6        |                     |   |
| 8  | 35               | 5     | 7        |                     |   |
| 9  | 32               | 4     | 8        |                     |   |
| 10 | 27               | 3     | 9        |                     |   |
| 11 | 20               | 2     | 10       |                     |   |
| 12 | 11               | 1     | 11       |                     |   |
| 13 |                  |       |          |                     |   |

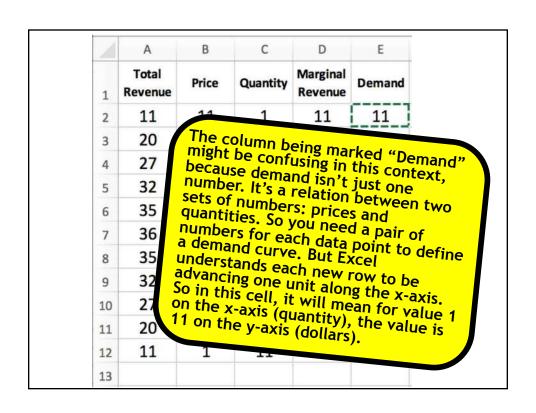
|    | A                | В     | С        | D                   | E |
|----|------------------|-------|----------|---------------------|---|
| 1  | Total<br>Revenue | Price | Quantity | Marginal<br>Revenue |   |
| 2  | 11               | 11    | 1        | 11                  |   |
| 3  | 20               | 10    | 2        | =A3-A2              |   |
| 4  | 27               | 9     | 3        |                     |   |
| 5  | 32               | 8     | 4        |                     |   |
| 6  | 35               | 7     | 5        |                     |   |
| 7  | 36               | 6     | 6        |                     |   |
| 8  | 35               | 5     | 7        |                     |   |
| 9  | 32               | 4     | 8        |                     |   |
| 10 | 27               | 3     | 9        |                     |   |
| 11 | 20               | 2     | 10       |                     |   |
| 12 | 11               | 1     | 11       |                     |   |
| 13 |                  |       |          |                     |   |

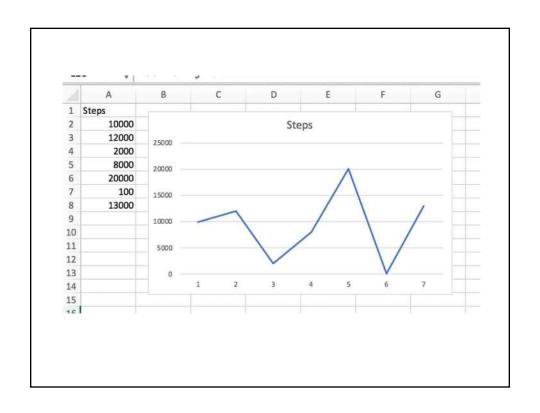
|    | Α                | В     | С        | D                   | E |
|----|------------------|-------|----------|---------------------|---|
| 1  | Total<br>Revenue | Price | Quantity | Marginal<br>Revenue |   |
| 2  | 11               | 11    | 1        | 11                  |   |
| 3  | 20               | 10    | 2        | 9                   |   |
| 4  | 27               | 9     | 3        | 7                   |   |
| 5  | 32               | 8     | 4        | 5                   |   |
| 6  | 35               | 7     | 5        | 3                   |   |
| 7  | 36               | 6     | 6        | 1                   |   |
| 8  | 35               | 5     | 7        | -1                  |   |
| 9  | 32               | 4     | 8        | -3                  |   |
| 10 | 27               | 3     | 9        | -5                  |   |
| 11 | 20               | 2     | 10       | -7                  |   |
| 12 | 11               | 1     | 11       | -9                  |   |
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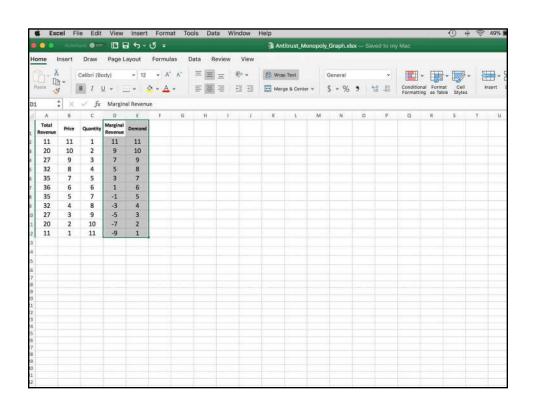
|    | Α                | В     | C        | D                   | E      |
|----|------------------|-------|----------|---------------------|--------|
| 1  | Total<br>Revenue | Price | Quantity | Marginal<br>Revenue | Demand |
| 2  | 11               | 11    | 1        | 11                  | =      |
| 3  | 20               | 10    | 2        | 9                   |        |
| 4  | 27               | 9     | 3        | 7                   |        |
| 5  | 32               | 8     | 4        | 5                   |        |
| 6  | 35               | 7     | 5        | 3                   |        |
| 7  | 36               | 6     | 6        | 1                   |        |
| 8  | 35               | 5     | 7        | -1                  |        |
| 9  | 32               | 4     | 8        | -3                  |        |
| 10 | 27               | 3     | 9        | -5                  |        |
| 11 | 20               | 2     | 10       | -7                  |        |
| 12 | 11               | 1     | 11       | -9                  |        |
| 13 |                  |       |          |                     |        |

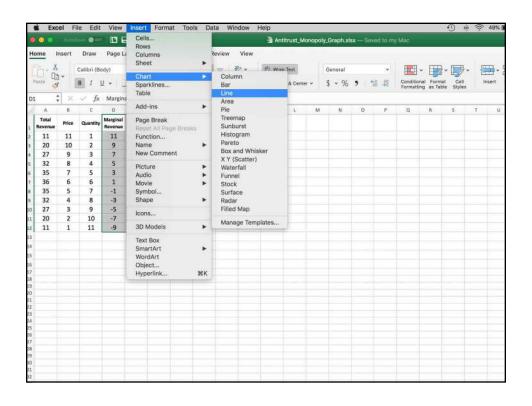
|    | Α                | В     | С        | D                   | E      |
|----|------------------|-------|----------|---------------------|--------|
| 1  | Total<br>Revenue | Price | Quantity | Marginal<br>Revenue | Demand |
| 2  | 11               | 11    | 1        | 11                  | =B2    |
| 3  | 20               | 10    | 2        | 9                   |        |
| 4  | 27               | 9     | 3        | 7                   |        |
| 5  | 32               | 8     | 4        | 5                   |        |
| 6  | 35               | 7     | 5        | 3                   |        |
| 7  | 36               | 6     | 6        | 1                   |        |
| 8  | 35               | 5     | 7        | -1                  |        |
| 9  | 32               | 4     | 8        | -3                  |        |
| 10 | 27               | 3     | 9        | -5                  |        |
| 11 | 20               | 2     | 10       | -7                  |        |
| 12 | 11               | 1     | 11       | -9                  |        |
| 13 |                  |       |          |                     |        |

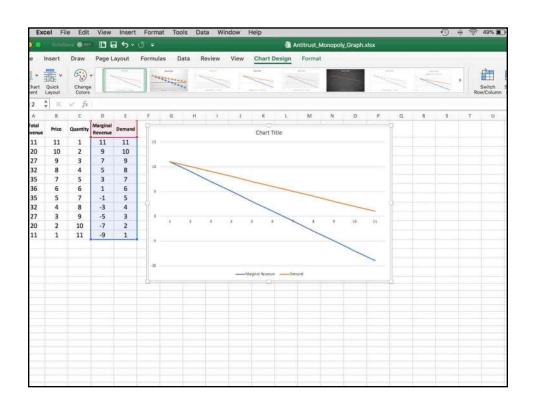
|    | Α                | В     | С        | D                   | E           |
|----|------------------|-------|----------|---------------------|-------------|
| 1  | Total<br>Revenue | Price | Quantity | Marginal<br>Revenue | Demand      |
| 2  | 11               | 11    | 1        | 11                  | 11          |
| 3  | 20               | 10    | 2        | 9                   | 10          |
| 4  | 27               | 9     | 3        | 7                   | 9           |
| 5  | 32               | 8     | 4        | 5                   | 8           |
| 6  | 35               | 7     | 5        | 3                   | 7           |
| 7  | 36               | 6     | 6        | 1                   | 6<br>5<br>4 |
| 8  | 35               | 5     | 7        | -1                  |             |
| 9  | 32               | 4     | 8        | -3                  |             |
| 10 | 27               | 3     | 9        | -5                  | 3           |
| 11 | 20               | 2     | 10       | -7                  | 2           |
| 12 | 11               | 1     | 11       | -9                  | 1           |
| 13 |                  |       |          |                     |             |

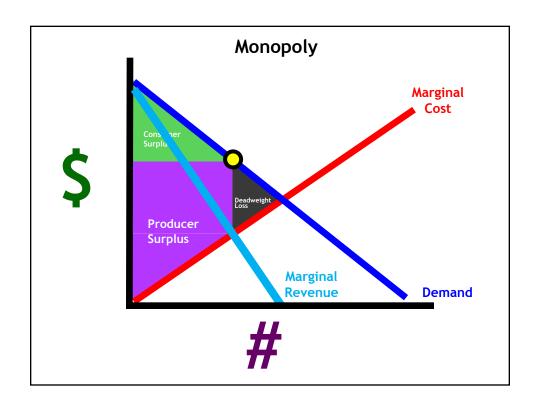


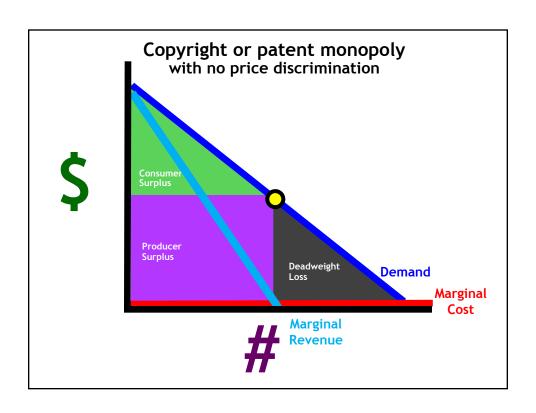


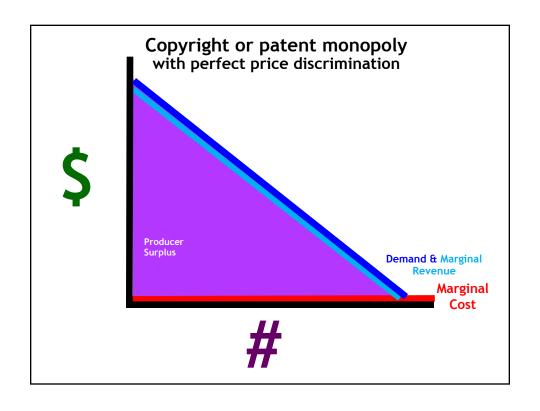


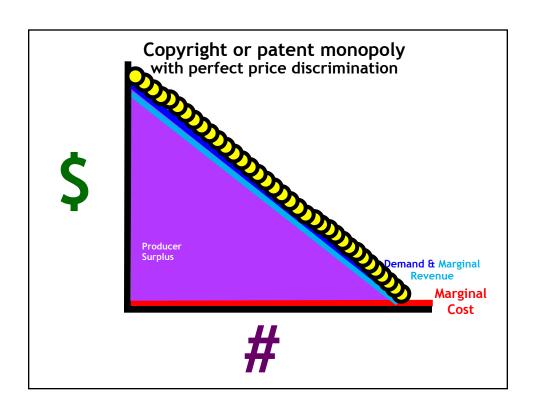




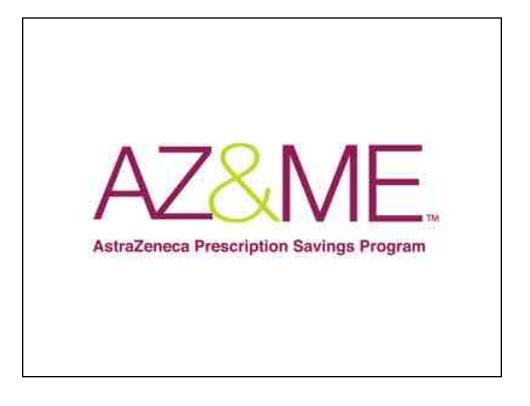


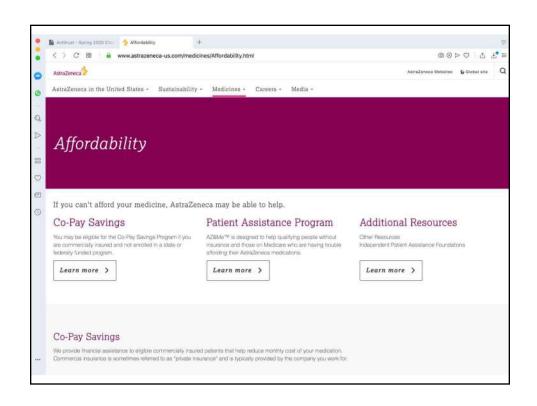


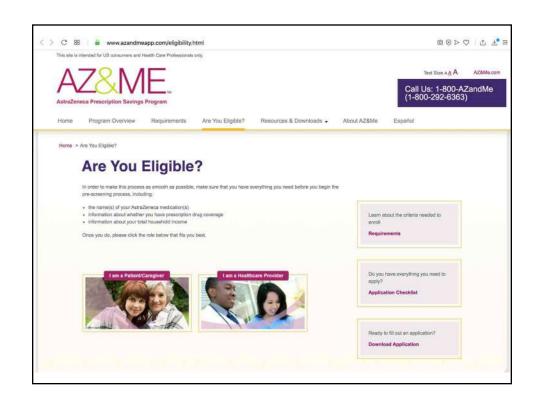


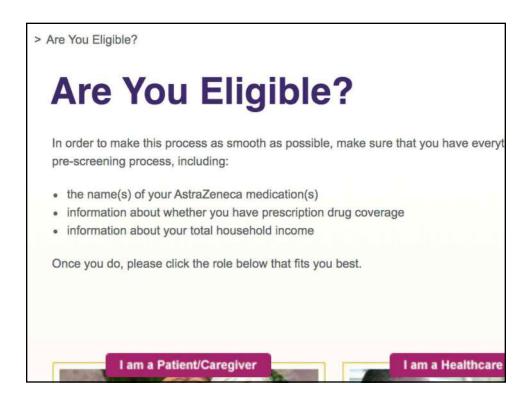


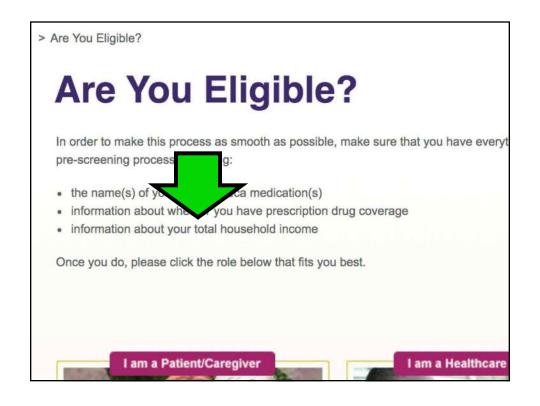


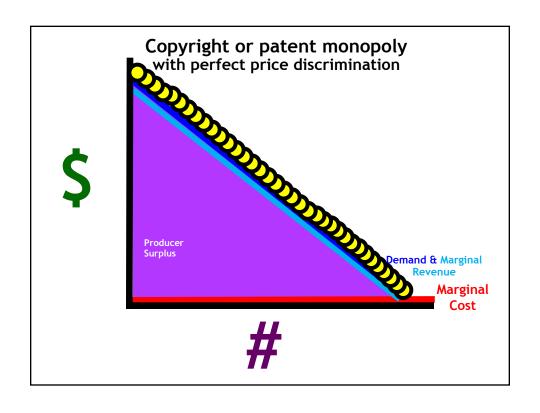


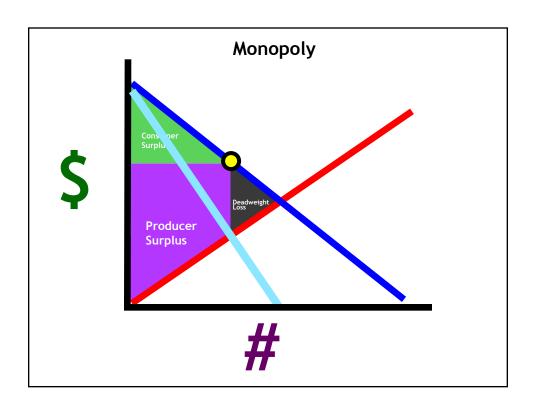












### **Dominant Market Power**

- Short of a monopoly, a dominant firm can have some power over prices.
- This can happen because:
  - Rivals have capacity constraints.
  - Rivals have higher costs.
- This can allow a dominant firm to raise prices to supracompetitive levels.
- The bottom-line is, you don't need a monopoly or a leak-proof cartel to have the power to raise prices and create deadweight loss.

### **Dominant Market Power and Mergers**

- Mergers that don't create a monopoly can still create dominant market power.
  - → This can increase producer surplus, which is good for the firm and incentivizes the merger.
  - → This can decrease allocative efficiency, which is bad for society.
- Mergers can allow firms to avoid wasteful, duplicative costs, and thus create beneficial efficiencies.
  - → This can increase producer surplus, which is good for the firm and incentivizes the merger.
  - → This can <u>increase</u> <u>productive efficiency</u>, which is good for society.
- Gains in productive efficiency can be offset by losses in allocative efficiency.
- If we are looking out for society, we need to figure out whether a merger raises productive efficiency more than it lowers allocative efficiency.

### Allocative and Productive Efficiency

- Productive efficiency is that we are being as productive as we can be with regard to one thing we want without any offset reduction in producing something else we want.
- Allocative efficiency is that all production and consumption is efficiently allocated.
  - Goods go to their highest and best uses.
  - Capital and labor go to their highest and best uses.

### Allocative and Productive Efficiency

"Productive efficiency means that, given the available inputs and technology, it is impossible to produce more of one good without decreasing the quantity that is produced of another good."

"Allocative efficiency means that the particular combination of goods and services on the production possibility curve that a society produces represents the combination that society most desires."

- POE <sup>2d ed.</sup> p. 35

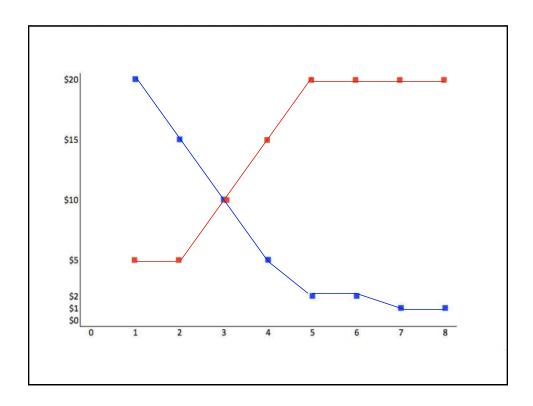
(which was not assigned!)

### Example: Windchimes in Wendover on Wednesday

An economy with just eight people and one day:

- Allen, who adores windchimes and would pay \$20 for one.
- Bonnie, who thinks windchimes are okay, and would pay \$15 for one.
- Chuck, finds windchimes uncharming, but he would buy one at \$10 just to have the option of annoying his neighbor, Darla, if Darla's incense burning was annoying him.
- Darla hates windchimes and she would only pay \$5 for one, which she could use for smashing with a hammer to let off steam. If the price were \$2, she'd buy two. For \$1, she'd get up to 5 and smash them all.
- Wendy, loves making wind chimes, and she's good at it. She can churn out two out for \$5 each.
- Xavier likes making things out of metal and clay. It would be worth it for him to make one set of windchimes if it could fetch \$10.
- Yvonne like playing video games and not working. It would only be worth it for her to make one set of windchimes if she got \$15 for it.
- Zendaya is a successful celebrity actor and singer. For it to be worth it to
  her to make windchimes, she'd have to be paid \$20 each, and even then
  she'd mostly do if for Instagram value. But she's a fast worker, so she
  could make four.

What is the efficient number of windchimes for this society to produce?



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- Wendy, loves making wind chimes, and she's good at it. She can churn out

If three windchimes are produced, and they all go to Darla, is that allocative inefficiency or productive inefficiency?

inefficiency
B. productive
inefficiency
cative
inefficiency
cative
cativ

D. I'm lost

A. allocative

for

th it

to

could make four.

What is the efficient number of windchimes for  $oldsymbol{k}$ 

### Example: Windchimes in Wendover on Wednesday

An economy with just eight people and one day:

- Allen, who adores windchimes and would pay \$20 for one.
- Bonnie, who thinks windchimes are okay, and would pay \$15 for one.
- Chuck, finds windchimes uncharming, but he would buy one at \$10 just to have the option of annoying his neighbor, Darla, if Darla's incense burning was annoying him.
- Darla hates windchimes and she would only pay \$5 for one, which she could use for smashing with a hammer to let off steam. If the price were \$2, she'd buy two. For \$1, she'd get up to 5 and smash them all.
- Wendy, loves making wind chimes, and she's good at it. She can churn out

If three windchimes are produced, and they all go to Darla, is that allocative inefficiency or productive inefficiency?

could make four.

What is the efficient number of windchimes for \mathbb{\chi}

A. allocative inefficiency
B. productive inefficiency
C. i.d.k.
D. I'm lost

### Example: Windchimes in Wendover on Wednesday

If Wendy would use a sharper knife that she forgot she has in the garage, she could turn out two more windchimes a day - is that allocative inefficiency?

A. allocative inefficiency
B. productive inefficiency
C. i.d.k.

D. I'm lost

to ng

\$2, sile a bay two. For \$1, sile a get up to 5 and

- Wendy, loves making wind chimes, and she's good at it. She can churn out two out for \$5 each.
- Xavier likes making things out of metal and clay. It would be worth it for him to make one set of windchimes if it could fetch \$10.
- Yvonne like playing video games and not working. It would only be worth it for her to make one set of windchimes if she got \$15 for it.
- Zendaya is a successful celebrity actor and singer. For it to be worth it to
  her to make windchimes, she'd have to be paid \$20 each, and even then
  she'd mostly do if for Instagram value. But she's a fast worker, so she
  could make four.

What is the efficient number of windchimes for this society to produce?

### Example: Windchimes in Wendover on Wednesday

If Wendy would use a sharper knife that she forgot she has in the garage, she could turn out two more windchimes a day - is that allocative inefficiency or productive inefficiency?

One day.

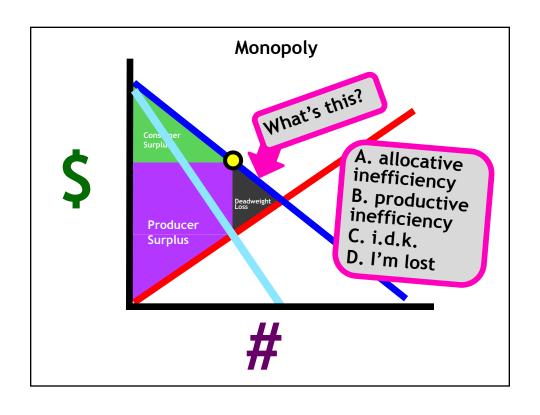
A. allocative inefficiency
B. productive inefficiency
C. i.d.k.

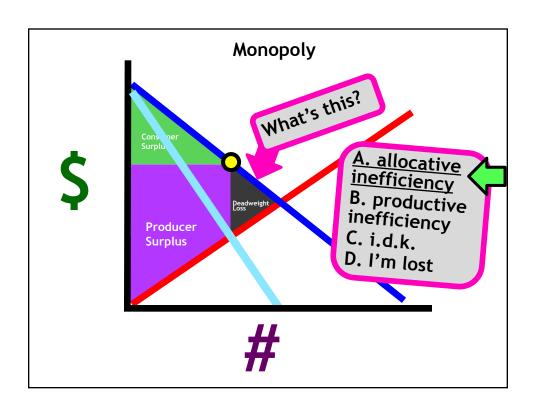
D. I'm lost

\$2, sile a pay two. For \$1, sile a get up to 5 and

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What is the efficient number of windchimes for this society to produce?





### **Dominant Market Power and Mergers**

- Mergers that don't create a monopoly can still create dominant market power.
  - → This can increase producer surplus, which is good for the firm and incentivizes the merger.
  - → This can <u>decrease</u> <u>allocative efficiency</u>, which is bad for society.
- Mergers can allow firms to avoid wasteful, duplicative costs, and thus create beneficial efficiencies.
  - → This can increase producer surplus, which is good for the firm and incentivizes the merger.
  - → This can <u>increase</u> <u>productive efficiency</u>, which is good for society.
- Gains in productive efficiency can be offset by losses in allocative efficiency.
- If we are looking out for society, we need to figure out whether a merger raises productive efficiency more than it lowers allocative efficiency.