## OUTLINE - September 26, 2018

- Market Failure
- Monopoly
- Oligopoly
- Monopolistic Competition

Midterm 1 is tomorrow, 8:10-9:30 pm
Today's new material will be on MT 2

## "Market Failure"

- If any of these assumptions isn't satisfied...
- perfect competition
- profit maximization
- utility maximization
- well-defined private property rights
- full information
- ...then markets "fail" . . .
- . . . to produce $q^{*}$ where $p=M C$


## Big Bottom Line of First Third of Course

- In perfect competition, in the long run,
firms produce profit-maximizing quantity where $p=M C$ and ATC is minimized


## Market Failure

- Four sources of market failure
- Imperfect Competition
- Externalities
- Public Goods
- Imperfect (Asymmetric) Information


## Market Failure: Imperfect Competition

- Monopoly
- One firm
- No close substitutes
- Barriers to entry
- Patents
- Government franchises
- Owning scarce resource
- Economies of scale
- Illegal means


## Monopoly

- Goal: max profit $\pi=T R-T C$
- Max profit when choose q so that MR = MC
- But, MR is not constant for a monopolist

| Profit Maximization |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| P | $\mathrm{I}_{\mathrm{d}}$ | TR | MR |  |
| 10 | 0 |  |  |  |
| 9 | 4 |  |  |  |
| 8 | 8 |  |  |  |
| 7 | 12 |  |  |  |
| 6 | 16 |  |  |  |
| 5 | 20 |  |  |  |
| 4 | 24 |  |  |  |

Marginal Revenue, in general



| Monopoly vs. Perfect Competition |
| :---: |
|  |
|  |

Price Discrimination by a Monopolist


## Oligopoly

- Few firms in a concentrated industry
$\rightarrow \quad$ top 4 firms sell over $90 \%$
$\rightarrow \quad$ power to influence price
- Product may be homogeneous or heterogeneous
- Key: inter-dependence of firms
- Suggestion: Take Econ 121


## Monopolistic Competition

- Lots of firms
- No barriers to entry/exit
- Heterogeneous product

| Oligopoly |
| :--- |
| - Few firms in a concentrated industry |
| $\rightarrow \quad$ top 4 firms sell over $90 \%$ |
| $\rightarrow \quad$ power to influence price |


| Profit Maximization |
| :---: |
| - Max profit when choose q so that MR = MC |
|  |


| Entry erodes profit |
| :---: |
|  |
|  |



## Effect of increased variable cost?



