

A Second Cournot Example



The Basic Steps

- Plot the reaction functions
 - If B produces nothing, A behaves like a monopoly
 - If B produces competitive output, A produces nothing
- Solve for their intersection

A Second Example

$$Q = 200 - 5P.$$
$$MC = \$10.$$

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- The Competitive Solution requires that $P = MC$, so $Q = 200 - 5(10) = 150$.

A Second Example

$$Q = 200 - 5P.$$
$$MC = \$10.$$

- For the Monopoly Solution, we require that $MR = MC$, as will occur at $Q = 75$.

Duopoly Reaction Functions

- When B produces nothing A should react by producing the monopoly output (75).

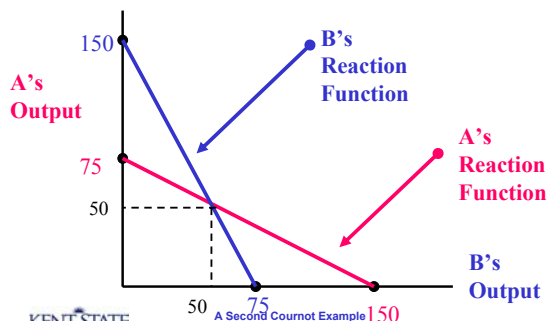
Duopoly Reaction Functions

- When B produces nothing A should react by producing the monopoly output (75).
- When B produces the output of the competitive industry (150), A should react by producing nothing.

Duopoly Reaction Functions

- When B produces nothing A should react by producing the monopoly output (75).
- When B produces the output of the competitive industry (150), A should react by producing nothing.
- Similar rules apply for B's reactions.

Graphing the Reaction Function



Next Steps

- Generalize to include more than two firms.
- Develop a concept called Nash Equilibrium.
- Develop an alternative duopoly model, the Bertrand Model.

End

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