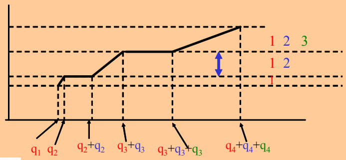
Equilibrium with Different Cost Functions



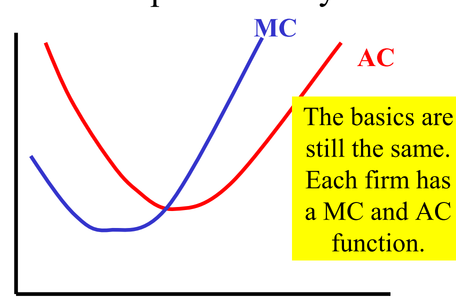
Equilibrium with Different Cost Functions

- We have discussed equilibrium when all firms, both potential and actual, have the same cost function.

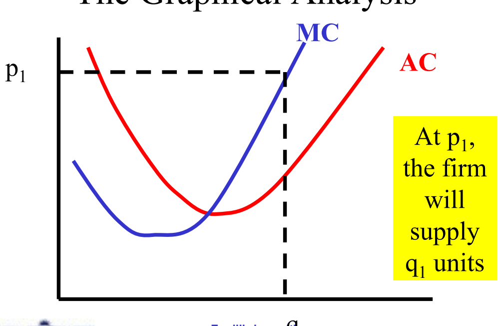
Equilibrium with Different Cost Functions

- We have discussed equilibrium when all firms, both potential and actual, have the same cost function.
- We now turn to the case where there are different cost functions.

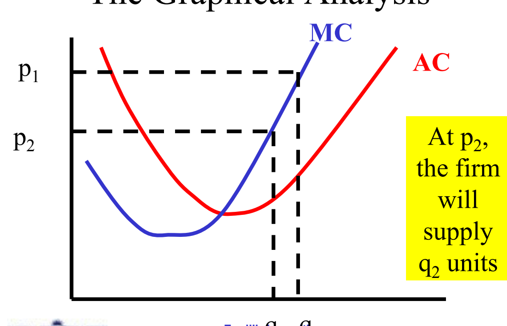
The Graphical Analysis

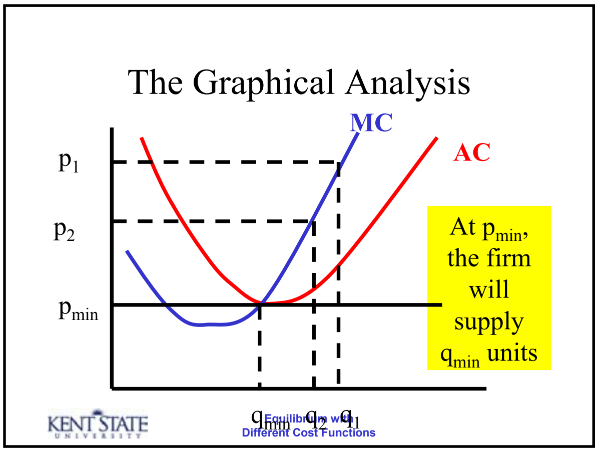


The Graphical Analysis



The Graphical Analysis




The Graphical Analysis
MC
AC
p_1
p_2
p_{min}
At p_{min}, the firm will supply q_{min} units
q_{min} q_2 q_1
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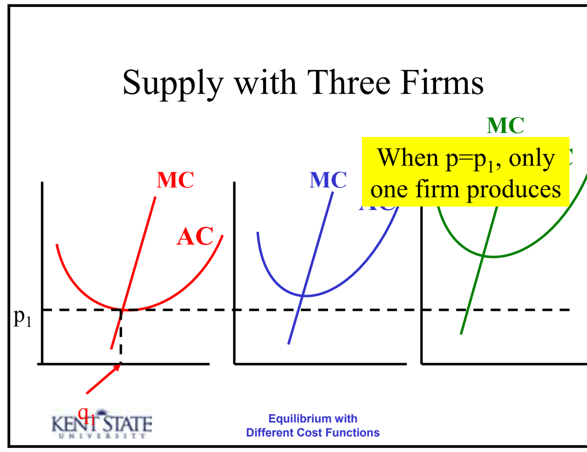
Equilibrium with Different Cost Functions


Supply with Three Firms
When $p=p_1$, only one firm produces
MC
AC
MC
MC
p_1
q_1
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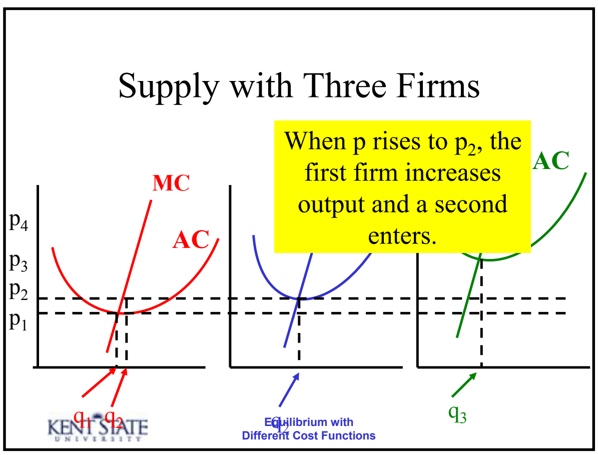
Equilibrium with Different Cost Functions


Supply with Three Firms
When p rises to p_2, the first firm increases output and a second enters.
MC
AC
AC
p_4
p_3
p_2
p_1
q_1 q_2
q_3
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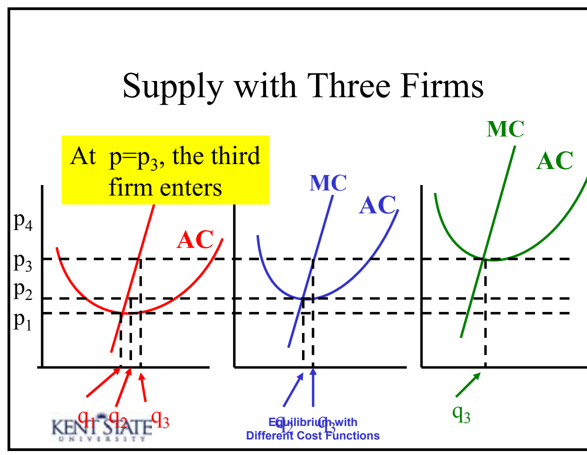
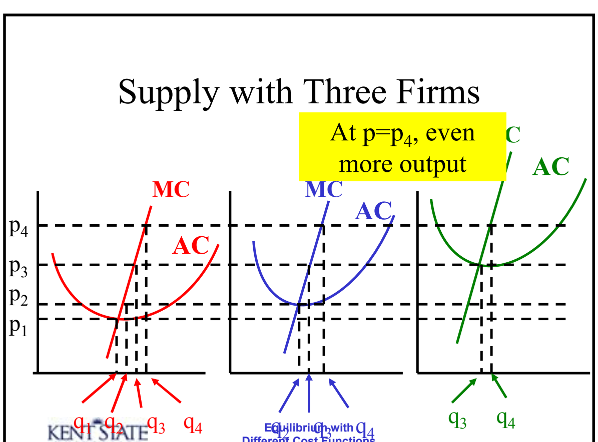
Equilibrium with Different Cost Functions


Supply with Three Firms
At $p=p_3$, the third firm enters
MC
AC
MC
AC
MC
AC
p_4
p_3
p_2
p_1
q_1 q_2 q_3
q_2 q_3
q_3
KENT STATE UNIVERSITY
Equilibrium with Different Cost Functions


Supply with Three Firms
At $p=p_4$, even more output
MC
AC
MC
AC
AC
p_4
p_3
p_2
p_1
q_1 q_2 q_3 q_4
q_2 q_3 q_4
q_3 q_4
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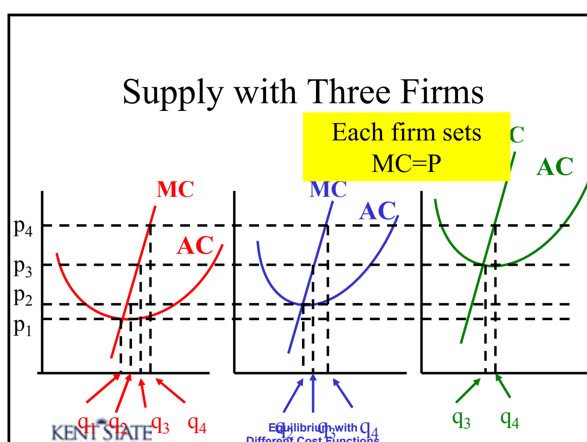
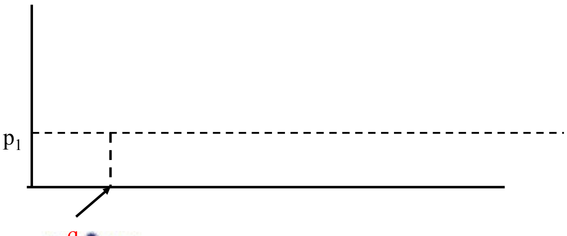
Equilibrium with Different Cost Functions


Supply with Three Firms
Each firm sets MC=P
MC
AC
MC
AC
AC
p_4
p_3
p_2
p_1
q_1 q_2 q_3 q_4
q_2 q_3 q_4
q_3 q_4
KENT STATE UNIVERSITY
Equilibrium with Different Cost Functions

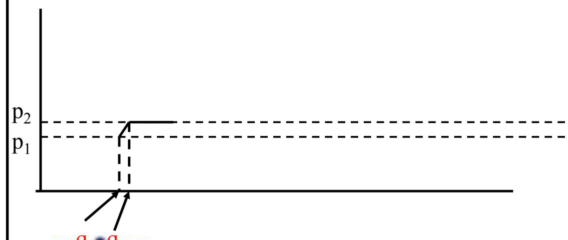
The Industry Supply Curve

No output until price rises to p_1. There, the first firm begins producing.



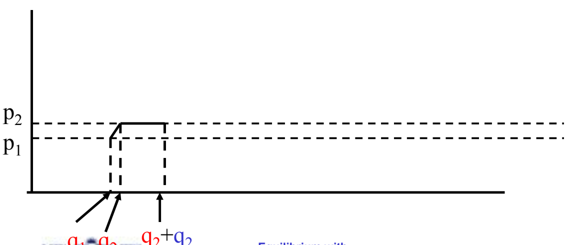
The Industry Supply Curve

As price rises from p_1 to p_2, the first firm moves along its marginal cost curve.



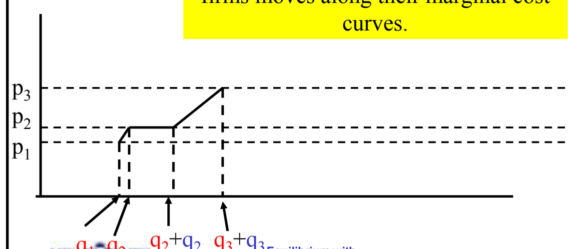
The Industry Supply Curve

At p_2, the second firm begins producing.



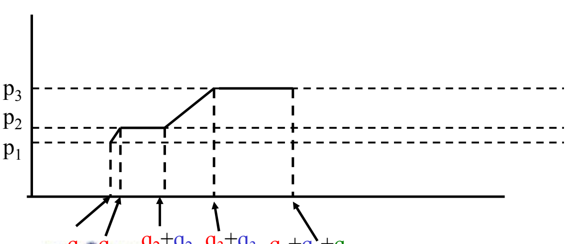
The Industry Supply Curve

As price rises from p_2 to p_3, the first two firms moves along their marginal cost curves.



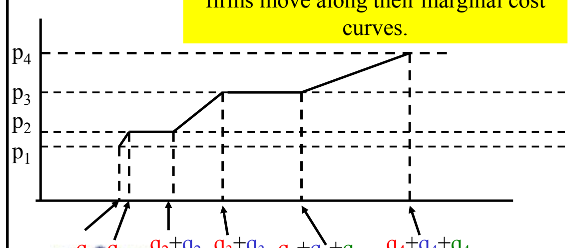
The Industry Supply Curve

At p_3 the third firm enters.

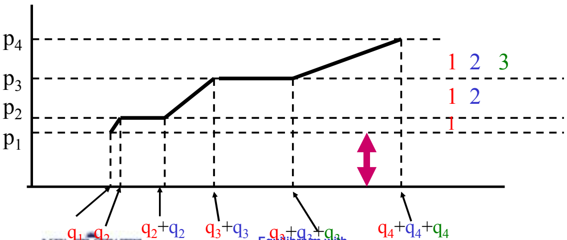


The Industry Supply Curve

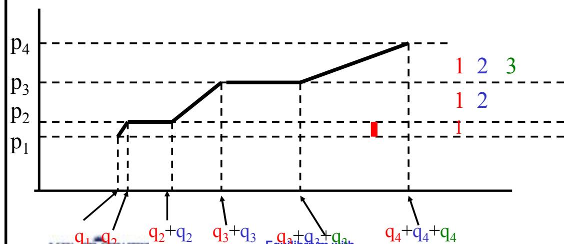
As price rises to p_4 and beyond, all three firms move along their marginal cost curves.



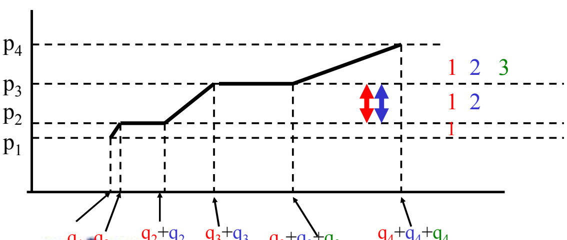
The Industry Supply Curve



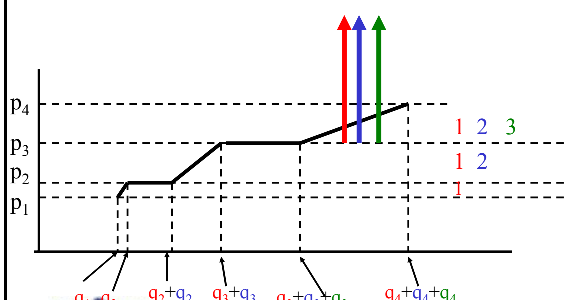
The Industry Supply Curve



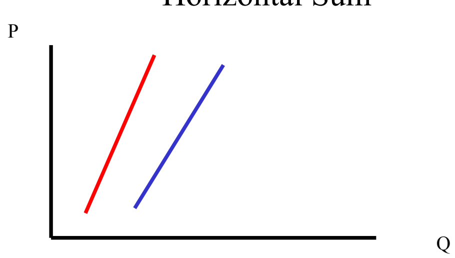
The Industry Supply Curve



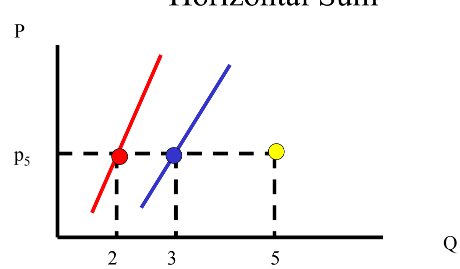
The Industry Supply Curve



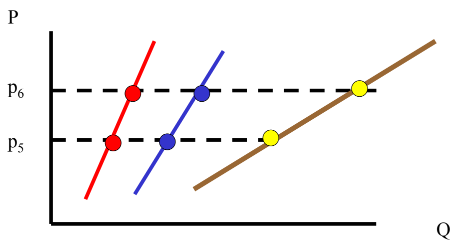
The Supply Curve as a Horizontal Sum



The Supply Curve as a Horizontal Sum



The Supply Curve as a Horizontal Sum



End