# Topic 11 – Perfect Competition

**Big Question** – How do Firms Behave in Perfectly Competitive Markets?

I. What is Perfect Competition?

1 Individual actors are rational and perfectly informed.

*Firms aim to maximize* _______________. *Consumers aim to maximize* _______________.

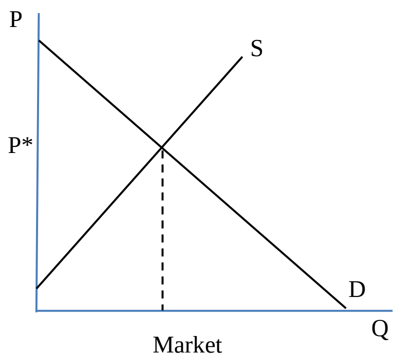
2 Each actor is a very small part of a large market.

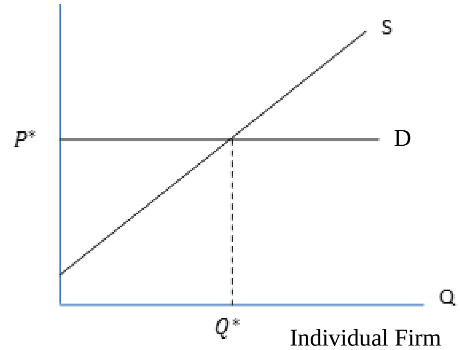
3 Each firm produces an ______________________________ product. Consumers are not able to distinguish between products produced by different firms.

4 There are no barriers to _____________________ or _____________________.

II. Firm Behavior in the Short-Run

Because all firms produce identical products, firms are ___________________________________.



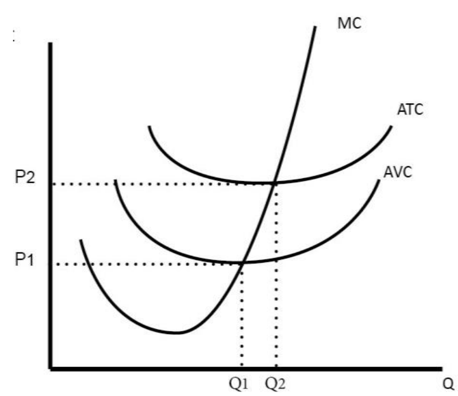

For firms in perfectly competitive markets:

___________ is equal to *marginal revenue*.

For any given market price, firms seek to answer 3 questions:

1. Should we keep my doors open or close?

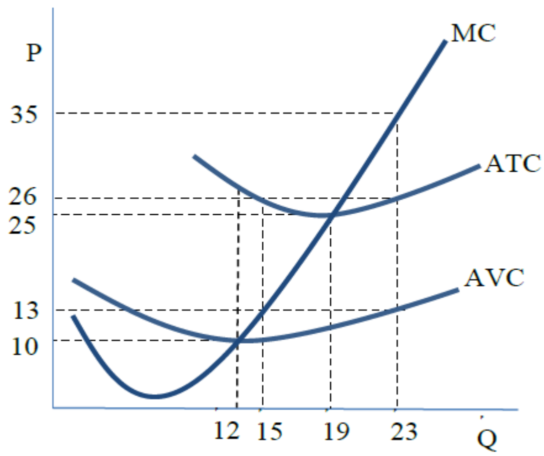
2. If we continue to operate, how much should we produce?

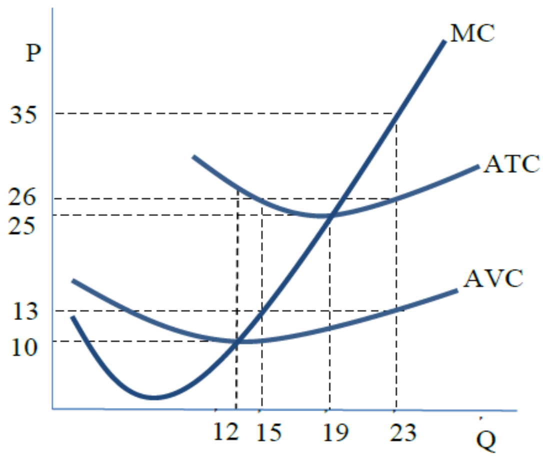



3. How much profit will we earn? Will it be positive?

Remember:
$\pi = (P - ATC) \cdot Q$

**Example:** The graphs below show the firm's cost structure.




a. How much will the firm produce if the price is $35?

b. How much profit will the firm earn if the price is $35?

c. How much will the firm produce if the price is $13?

d. How much profit will the firm earn if the price is $13?

e. Below what price would profits be negative?

f. Below what price would the firm close in the short-run?

III. Competition in the Long-Run

*In the long-run, firms can enter and exit the market.*

If $\pi < 0$ in the LR firms will _________ the market, supply will ________, and price will ________.

If $\pi > 0$ in the LR firms will _________ the market, supply will ________, and price will ________.

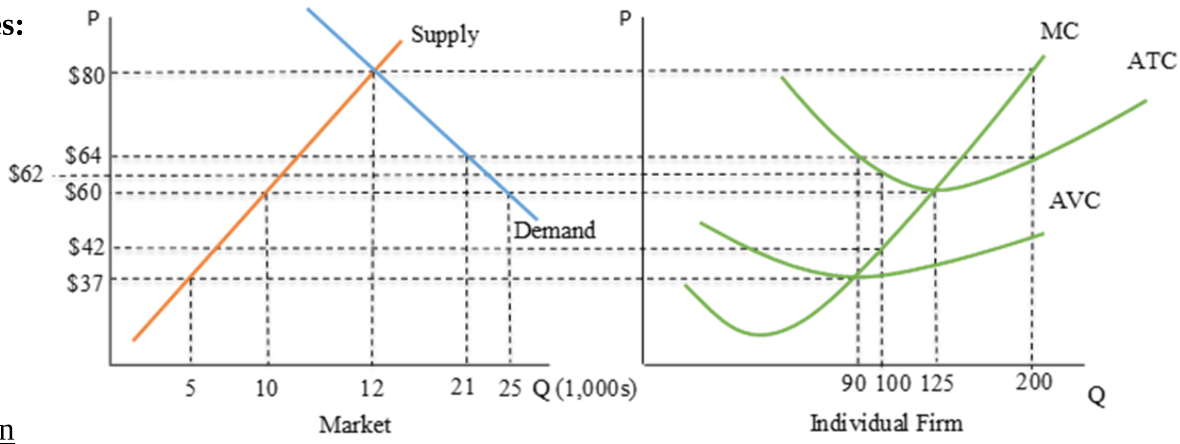
The long-run competitive equilibrium occurs where _______________________.

*The Invisible Hand* of the market place functions to allocated productive resources across industries, leading to a good outcome for society because:

1.

2.

**Examples:**




Short-Run

a. What's the market equilibrium price for shoes?

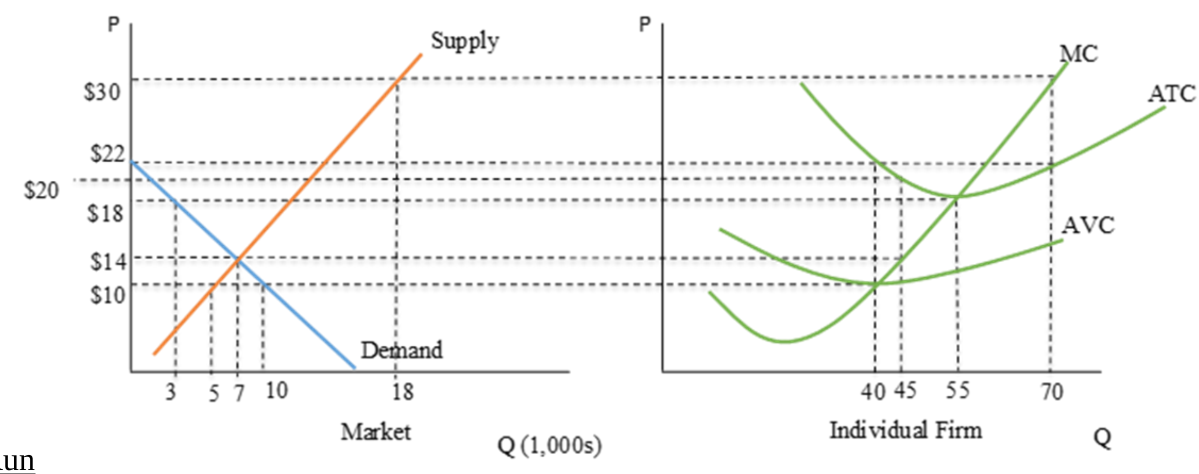
b. How many shoes will each firm produce in order to maximize profits in the short-run? How much profit will each firm earn?

Long-Run

c. What do you predict will happen to the number of firms producing shoes in the long-run?

d. What is the long-run equilibrium price and quantity in the market for shoes?

e. How many shoes will each individual firm sell? How much profit will they earn?




Short-Run

a. What's the market equilibrium price for pizzas?

b. How many pizzas will each firm produce in order to maximize profits in the short-run? How much profit will each firm earn?

Long-Run

c. What do you predict will happen to the number of firms producing pizzas in the long-run?

d. What is the long-run equilibrium price and quantity in the market for pizzas?

e. How many pizzas will each individual firm sell? How much profit will they earn?

IV. Economic Profit vs. Accounting Profit

$$\textit{Economic Profit} = \overbrace{\textit{Total Revenue} - \textit{Explicit Costs}}^{\textit{Accounting Profit}} - \textit{Implicit Costs}$$

**Example**: Read the following excerpt from "How To Start A Magazine (And Make A Profit)" from Planet Money, and then answer the questions below.

1. Calculate the monthly accounting profit for *The Magazine*.

2. What type of costs are listed? What's not included in these cost estimates?

3. Marco Arment stopped publication of *The Magazine* after just 28 months. What does that tell you about the opportunity cost and economic profit of publishing *The Magazine*?

Last fall, Marco Arment launched a general interest magazine. It's called, aptly enough, The Magazine. Writers are paid $800 per article. There are no ads. Until recently, it was available only via iPhones and iPads. Astonishingly, it's already turning a profit. Arment walked me through the numbers. He has 25,000 subscribers who pay $1.99 a month. Apple takes a 30 percent cut, leaving Arment about $35,000 a month.

This cost of putting out the magazine is a bit over $20,000 per month. It comes out every two weeks, and each issue costs about $10,000. Roughly $4,000 goes to writers. The rest goes mostly to copy editors, illustrators, photographers and editors. Arment had an advantage in getting his magazine off the ground: He's a well-known guy in the tech world who created Instapaper, was the lead developer at Tumblr and now has his own blog and podcast. Then again, given all that, why go to the trouble of creating a magazine? "I don't really know why I started it," Arment told me yesterday.

Then he listed off a bunch of reasons why he started it. He knew lots of good bloggers who weren't doing any magazine writing. He wanted a magazine that he wanted to read. ("General interest, with a geeky slant.") And, weirdly, the business case for a magazine was really compelling. "What I saw was a fluke in app store pricing," he told me. "If you have an app, you can charge, realistically, about $3 these days." Somebody buys the app, and that's it. But for a magazine, you can charge $1.99 every month. Of course, when you're publishing the magazine, you do have to pay for a new issue every two weeks. And if you're a publisher with no full-time staff, you're pretty much locked in. "With Instapaper, I can take a few months off," Arment said. "I can't stop publishing The Magazine for two months and work on something else."

V. Assignments

a. Video Assignment 9 and Problem Set 11 due on 3/27/20