Test Yourself: Competition

Never stop testing, and your advertising will never stop improving.
~David Ogilvy

Who was Adam Smith?

Adam Smith was the father of modern economics who wrote *The Wealth of Nations,* published in 1776.

What did Adam Smith say about competitive forces?

Smith said competitive forces are like an invisible hand that leads people who pursue their own interests to serve the interests of society.

What is
market structure?

Market structure is a classification system based on the key traits of an industry, including the number of firms in the industry, the similarity of the products they sell and the ease/difficulty of entering and exiting the industry.

What is perfect competition?

Perfect competition is a market structure characterized by
many small price-taker firms that sell a homogeneous product in an industry that is very easy to enter and exit from.

What is meant by a *large* number of firms?

A *large* number of firms means enough firms so that each firm is too small (relative to the total industry) to be able to influence the market price of the product the industry sells.

What does homogeneous mean?

Homogeneous goods are goods that cannot be distinguished from one another. They're not identical ... There are simply no distinguishing differences (at least in consumers' perception). For example, one potato is about the same as another potato. The same could be said about computer chips, petroleum, copper, notebook paper and etc.

What difference does it make if the products an industry sells are homogeneous products?

If a product is homogeneous, buyers don’t care which seller’s product they buy. One seller’s products are pretty much the same as the others’ products.

What does easy entry mean?

A barrier to entry is a cost of doing business required of firms wanting to enter an industry but not required of firms already in the industry. Examples are the need to advertise, capital equipment, raw materials, customer loyalty, government regulations, etc.

In a competive market, those barriers don't exist, making it easy for new firms to "jump in" when the profits are good, i.e. easy entry.

What is a price taker?

Remember that a large number of firms means each firm is too small (relative to the total industry) to be able to influence the price of the product the industry sells.

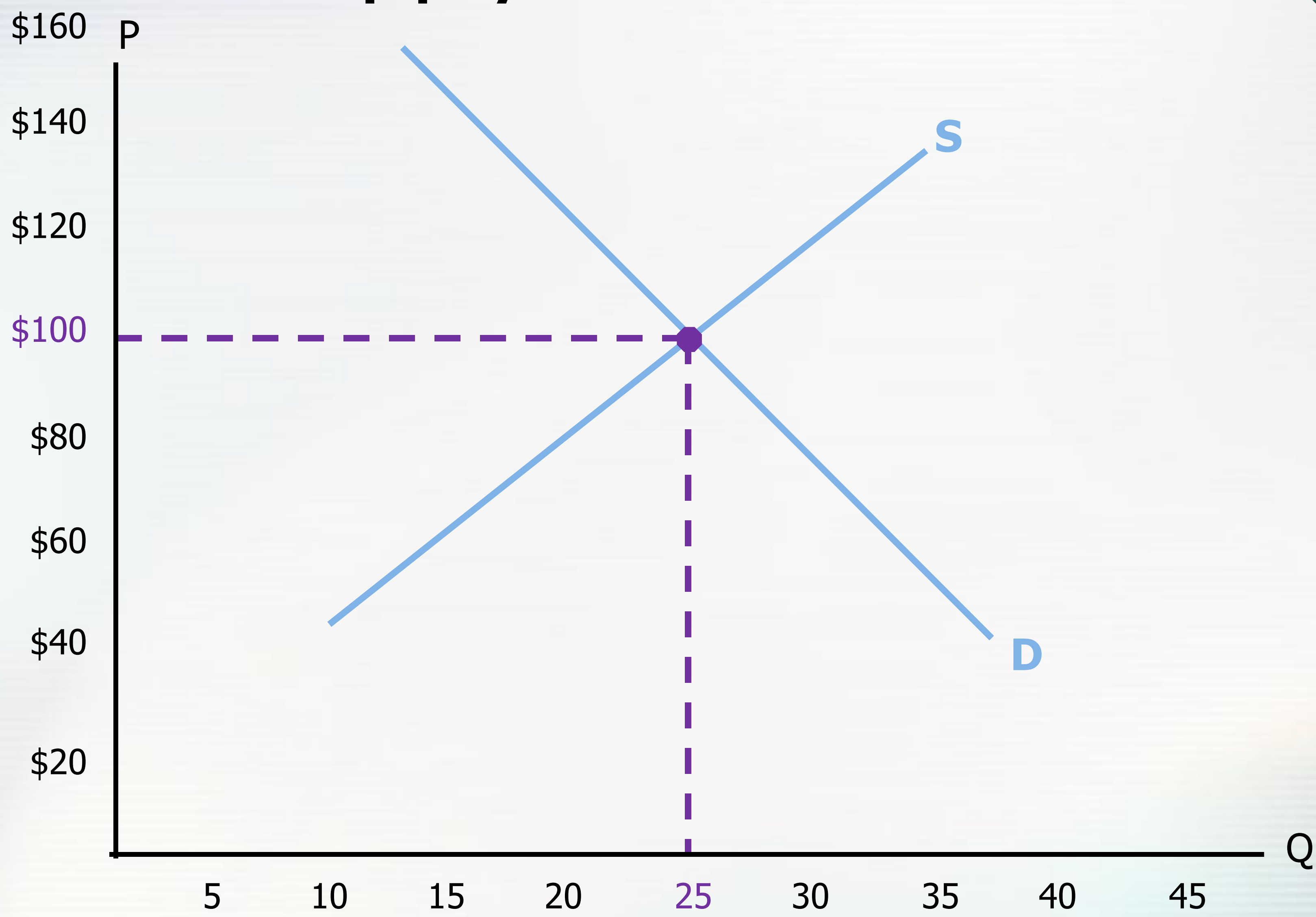
Since the sellers have no control over the price of their product they must "take" the price set by the market, i.e. price takers.

If the firms in an industry don’t set the price, who does?

Supply and demand sets the price.

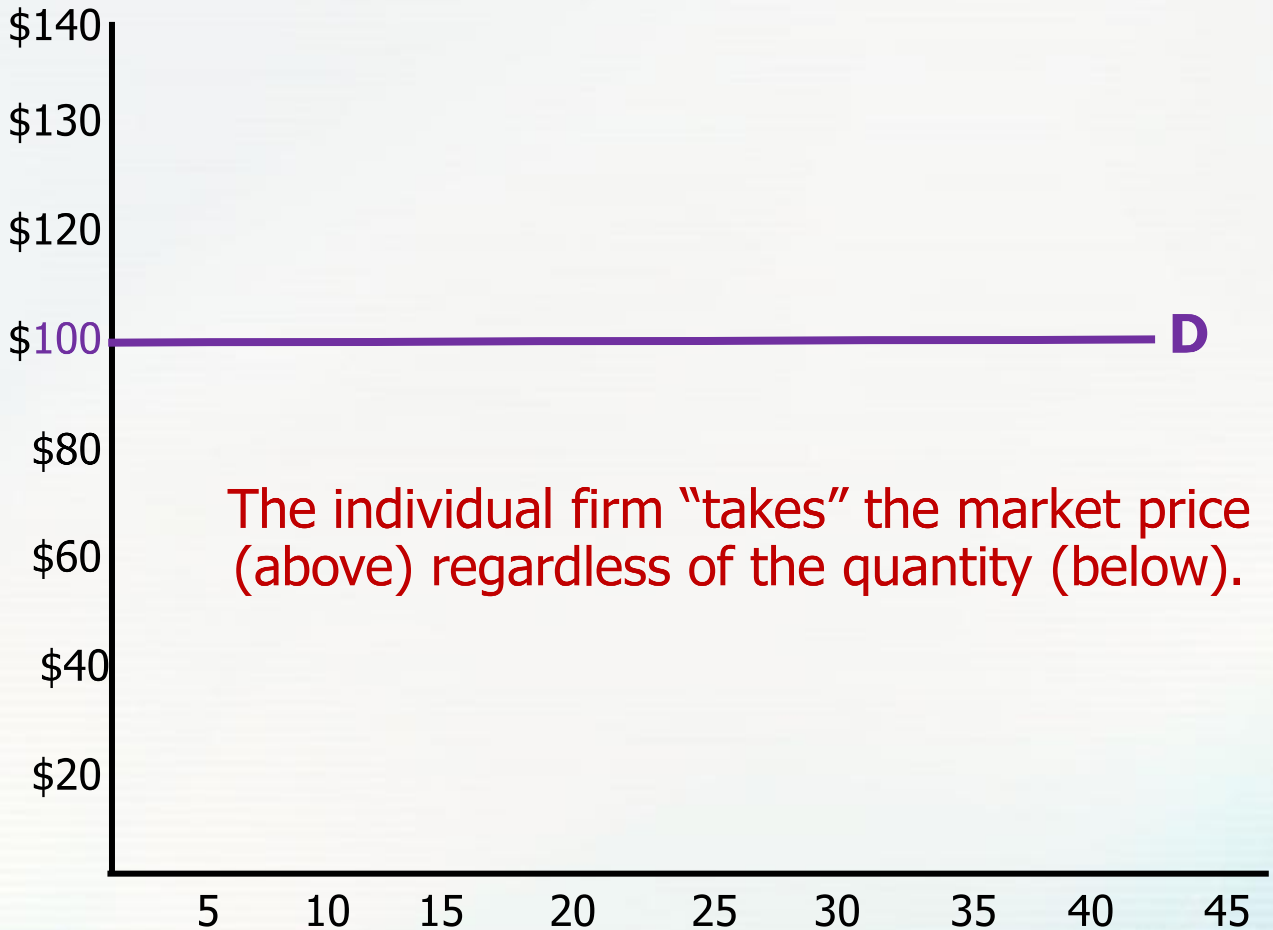
Because the firms sell products identical to each other, each firm must charge a price no higher than the competition or it won't sell its product. The market price is determined by *consumer demand* and the *total supply* of all firms in the industry. Once an equilibrium price has been established, each firm takes this price as given.

Market Supply and Demand



What is the individual firm's demand curve?

The individual firm's demand curve is a horizontal line at the *market price*. (Remember firms have to accept the market price.)



Why is a horizontal line the individual firm's demand curve?

If the firm charges *more* than the market price, it won’t sell anything.

And the firm has no incentive to charge *less* than the market price.

Why does the firm have no incentive to charge less than the market price?

Market demand ensures that the firm can sell *everything* it brings to market at the market price.

There’s no need for a “clearance sale” at reduced prices if there’s nothing to “clear.”

Does the firm in a competitive market control *any*thing?

The only thing a firm in a competitive market controls is how many units it produces.

How many units should the firm produce?

A firm should produce the number of units that will maximize its profits, or at least minimize its losses.

There are two methods a firm can use to determine how many units to produce in order to maximize its profits.

What are they?

The two methods a firm can use to determine how many units to produce in order to maximize its profits are

1. The Total Revenue (TR) and Total Cost (TC) Method
2. The Marginal Revenue (MR) and Marginal Cost (MC) Method

What does the Total Revenue – Total Cost Method say about where a firm should produce?

The Total Revenue – Total Cost Method says a firm should produce at a level where the distance between TR and TC is the greatest.

What is marginal revenue?

Marginal revenue is the change in revenue that results from the sale of one more unit of output.

It’s calculated by dividing the change in total revenue by the change in output quantity or:

MR = Δ TR / Δ 1 output

What is marginal cost?

Marginal cost is the change in total cost that results from producing one more unit of output or servicing one more customer.

It's calculated by dividing the change in total cost by the change in output quantity or:

$$MC = \Delta\ TC / \Delta\ 1 \text{ output}$$

What does the Marginal Revenue – Marginal Cost Method say about where a firm should produce?

The Marginal Revenue – Marginal Cost Method says a firm should produce until the level at which

MR = MC.

Produce as long as the product’s marginal revenue is higher than the marginal cost of producing the product. (If the marginal cost is higher than the revenue, it wouldn’t be profitable to produce it.) Continue production until the marginal cost is equal to the marginal revenue.

Why should a firm continue to produce as long as MR > MC?

As long as MR is > than MC, money is being made on that last unit.

Why will a firm not produce that unit where MR < MC?

At the unit of output where MR < MC, money is being lost on that last unit so continuing production wouldn't make sense.

Why is the firm's demand curve horizontal at the market price?

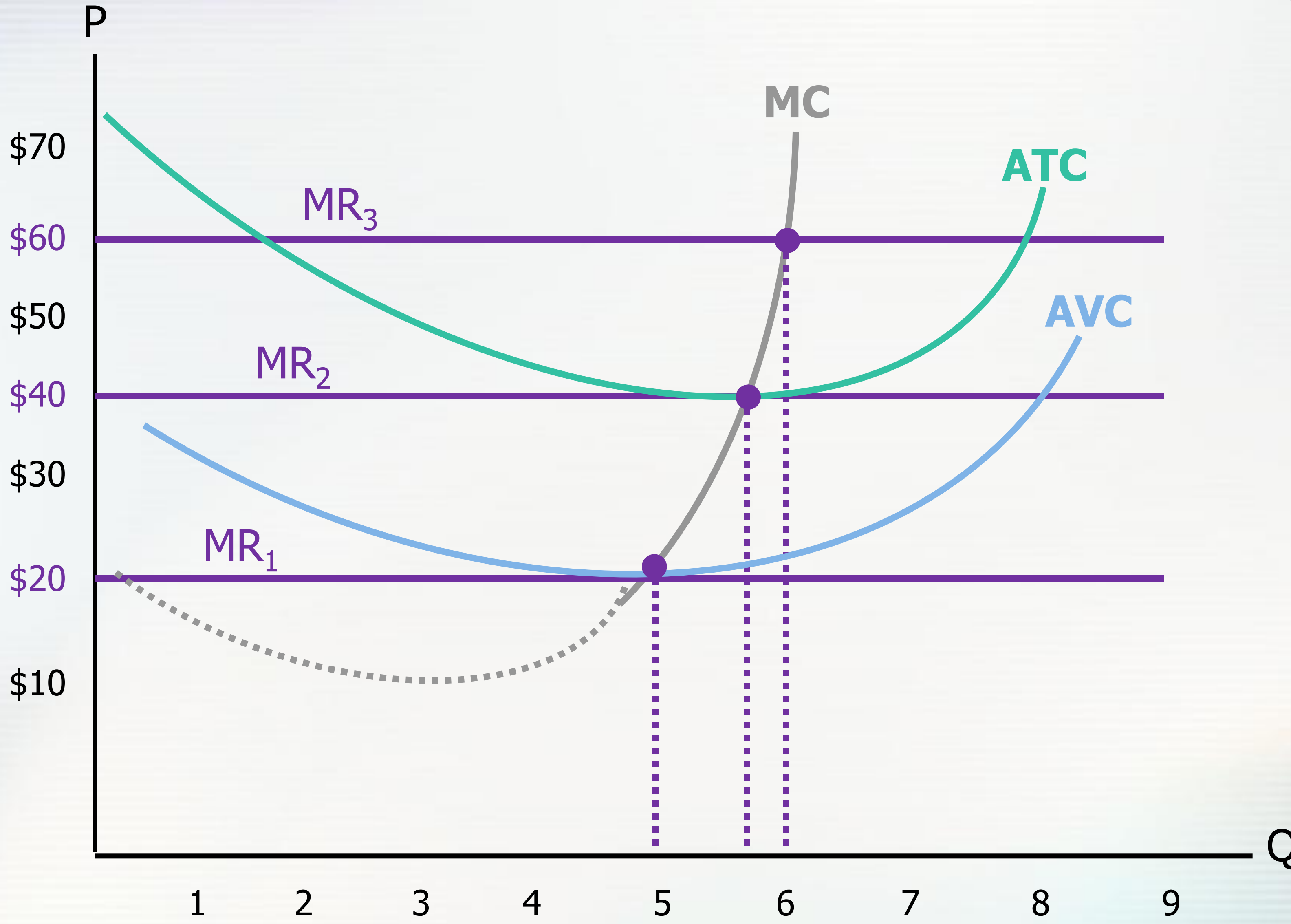
The firm’s demand curve is horizontal at the market price because the firm can sell everything it produces at the market price.

What is the competitive firm's *short-run* supply curve?

The firm's *short-run* supply curve is its marginal cost (MC) curve above the minimum point on its average variable cost (AVC) curve.

On the next slide, find the MC curve (it's gray). Find the AVC curve (it's blue). Find the minimum point on the AVC curve.

Firm's Short-Run Supply Curve



What is the industry's supply curve?

The industry's *supply curve* is the *sum* of the individual firms' MC curves that lie above their minimum AVC points

What is a normal profit?

A normal profit is the minimum profit necessary to keep a firm in operation.

In the long-run, what happens when economic profits are made?

When firms make more than a normal profit, new firms enter the industry. As supply increases, a downward pressure is put on prices.

In the long-run, what happens when losses are made?

When firms make less than a normal profit, firms leave the industry. As supply decreases, an upward pressure is put on prices.

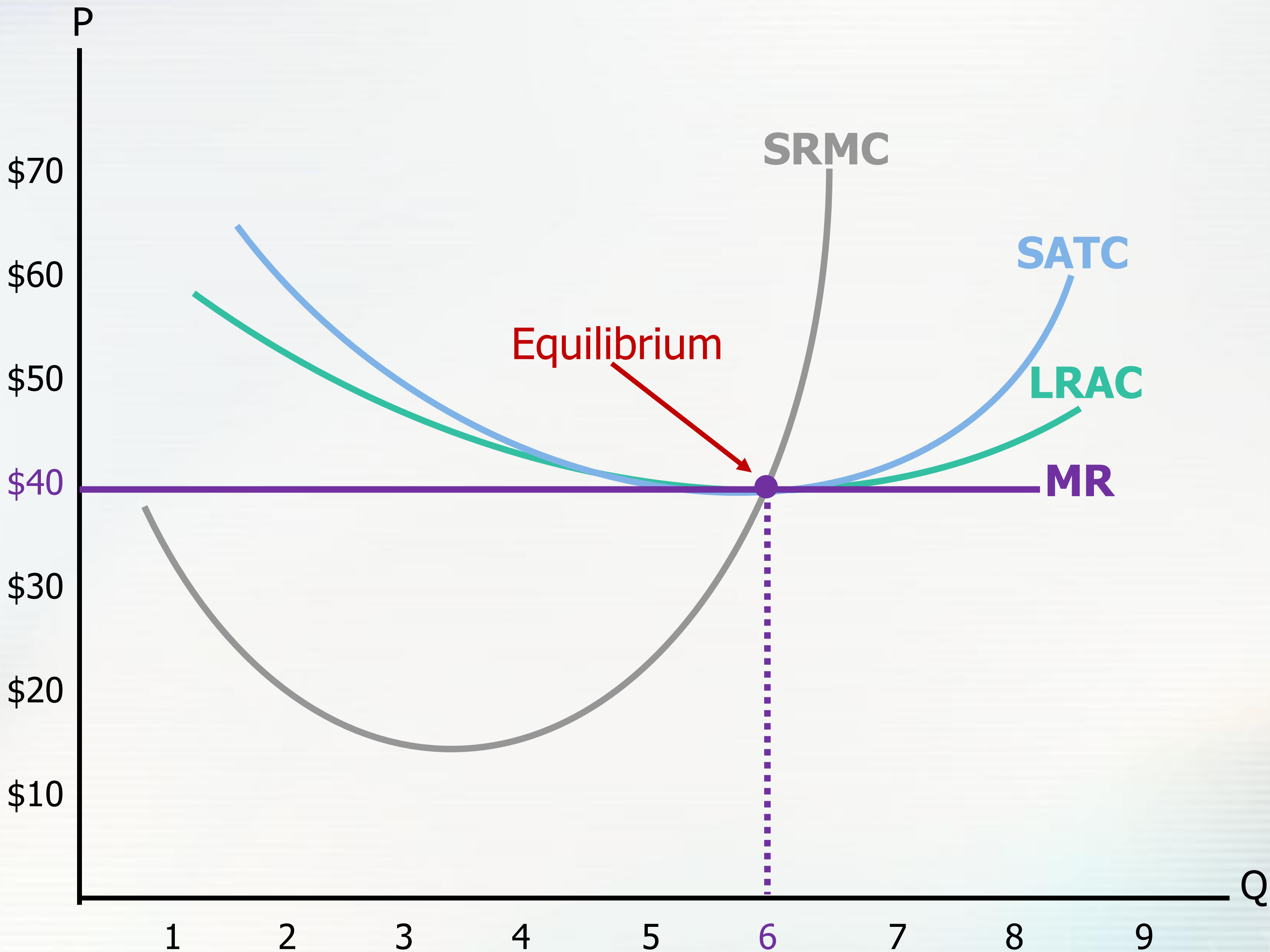
In the long-run, where is equilibrium?

In the long-run, equilibrium is at the market price that enables firms to make a normal profit.

At the long-run competitive equilibrium:

$$P = MR = SRMC = SRATC = LRAC$$

Long-Run Competitive Equilibrium



How did you do?! If you didn’t do as well as you’d like, review the margin notes and presentations and test yourself again.

CONTINUED IN
TEST YOURSELF: MONOPOLY