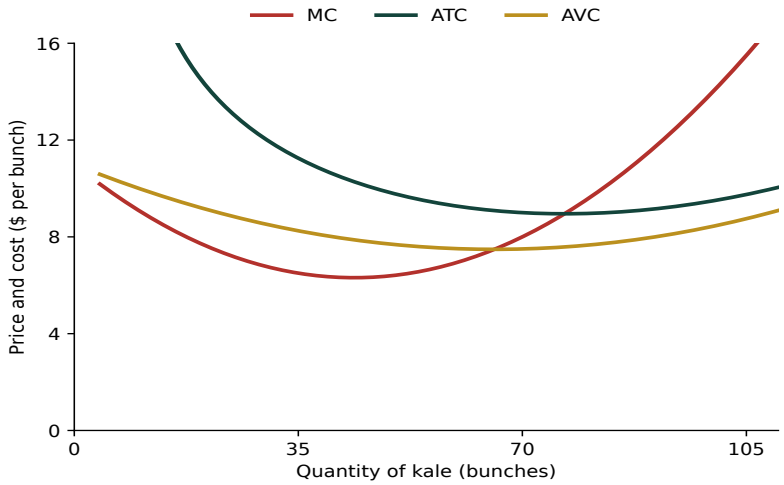
# Model & Apply



## ECONOMIC MODEL · THE COMPETITIVE FIRM: COST CURVES AND HORIZONTAL DEMAND

**Complete the competitive-firm model**




*Add D = MR = AR = P at $8. Mark q* where MR = MC; shade the profit or loss rectangle.*

## READING THE MODEL · COMPLETE EACH POINT

1. The horizontal demand line: _____
2. Find q* at MR = MC: _____
3. Profit or loss is a rectangle: _____
4. Apply the shut-down test: _____

## APPLY IT · CONCEPT-APPLICATION FRQ

The market for organic kale is perfectly competitive, and the equilibrium price is $8 per bunch. The farmer's per-bunch costs (rounded to cents) are: at q = 50, ATC = $9.78, AVC = $7.68, MC = $6.41; at q = 70, ATC = $9, AVC = $7.50, MC = $8; at q = 90, ATC = $9.14, AVC = $7.97, MC = $11.55. (a) On a correctly labeled graph for the firm, draw MC, ATC, AVC, and the firm's demand curve at P = $8. (b) Identify the firm's profit-maximizing quantity and justify it with the MR = MC rule. (c) Calculate the firm's total economic profit or loss at q*. (d) Should the firm continue producing in the short run? Justify with the shut-down rule.