Perfect Competition

Introduction

The Model

The firm's average cost function is

$$AC = 15 + 2\ \text{Weather} - 2\ Q + 0.10\ Q^2$$

The firm can sell an unlimited quantity at the market price of \$9.50.

Exercises

1. Draw the average cost (AC) and marginal cost (MC) curves.

2. Show that producing 11.78 units maximizes profits.

3. Increase and decrease the market price, solving at each step for the profit maximizing quantity. Graph these points to show the firm's supply curve.

4. Change the value of the weather variable. Determine what effect that has on the profit maximizing quantity for the current market price.

5. Return to the "Derive the Supply Curve" page. Change the market price to again trace out the supply curve. What effect does changing the weather have on the supply curve?