# Assignment 3.1: The Supply Curve

**Part I: Single Investor–Owned Firm**

Complete the following for a*single investor–owned firm.*

1. Define total revenue (TR), marginal revenue (MR), and the profit-maximizing rule.
2. Calculate MR, MC, and ATC for Table 3.1.
3. Give the profit-maximizing level of output (Q).

**Part II: Tax-Exempt Agency**

Now, assume the firm is a *tax-exempt agency*. One possibility is that tax-exempt agencies maximize output.

1. Define the output-maximization rule.
2. Give the output-maximizing level of output (Q) in Table 3.1.
3. Explain what happens to the supply curve for an output-maximizing firm if it increases the quality of their visits.

**Table 3.1**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Quantity of Visits (Q) | Total Revenue (TR) | Marginal Revenue (MR) | Total Costs (TC) | Marginal Cost (MC) | Average Total Cost (ATC) |
| 0 | 0 |  | 50 |  |  |
| 1 | 200 |  | 175 |  |  |
| 2 | 400 |  | 350 |  |  |
| 3 | 600 |  | 550 |  |  |
| 4 | 800 |  | 800 |  |  |
| 5 | 1000 |  | 1100 |  |  |