Principles of Economics

# Session 4 In-class Activity

# Cost Concepts Practice Puzzle

First, let's review our basic cost concepts. Recall that:

TFC= total fixed cost: costs that are the same at all output levels

TVC = total variable cost: costs that vary with the level of output

TC = total cost: sum of the total fixed cost and variable costs

 TC = TFC + TVC

MC = marginal cost: the additional cost from producing one more unit of output

ATC = average total cost: total cost per unit of output

 ATC = TC/Q

 ATC = AFC + AVC

AFC = average fixed cost: total fixed costs per unit of output

 AFC = TFC/Q

AVC = average variable cost: total variable cost per unit of output

 AVC = TVC/Q

The relationship between these concepts can be seen in the following example.

Example:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Output | TFC($) | TVC($) | TC($) | MC($) | AVC($) | AFC | ATC |
| 0 | 100 | 0 | 100 | --- | --- | --- | --- |
| 1 | 100 | 40 | 140 | 40 | 40 | 100 | 140 |
| 2 | 100 | 70 | 170 | 30 | 35 | 50 | 85 |
| 3 | 100 | 90 | 190 | 20 | 30 | 33.3 | 63.3 |
| 4 | 100 | 120 | 220 | 30 | 30 | 25 | 55 |
| 5 | 100 | 160 | 260 | 40 | 32 | 20 | 52 |
| 6 | 100 | 220 | 320 | 60 | 36.7 | 16.7 | 53.4 |

Now it’s your turn. Using your knowledge of the relationships between the cost concepts, and the provided numbers, complete the blanks in the chart below.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Burritos | TFC | TVC | TC | MC | AFC | AVC | ATC |
| 0 |  |  |  | ------ | ------- | ------ | ------ |
| 1 |  |  |  |  |  |  | 64 |
| 2 |  |  |  | 16 |  |  |  |
| 3 |  | 70 |  |  |  |  |  |
| 4 |  |  |  | 14 |  |  |  |
| 5 | 20 |  | 130 |  |  |  |  |
| 6 |  |  |  |  |  | 140/6 |  |