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| 1.* Bottom of Form

An economist estimated that he cost function of single-prodcut firm is C(Q) = 100 + 20Q + 15Q2 + 10Q3Based on this information, determine:1. The fixed cost of producing 10 units of output
2. The variable cost of producing 10 units of output
3. The total cost of producing 10 units of output
4. The average fixed cost of producing 10 units of output
5. The average variable cost of producing 10 units of output
6. The average total cost of producing 10 units of output
7. The marginal cost when Q = 10

**2.**A firm’s fixed costs for producing 0 units of output and its average total cost of producing different output levels are summarized in the tale below. Complete the table to find the fixed cost, variable cost, total cost, average fixed cost, average variable cost, and marginal cost at all levels of output.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Q** | **FC** | **VC** | **TC** | **AFC** | **AVC** | **ATC** | **MC** |
| 0 | $15,000 |  |  |  |  | ----- |  |
| 100 |  |  |  |  |  | $300 |  |
| 200 |  |  |  |  |  | 200 |  |
| 300 |  |  |  |  |  | 175 |  |
| 400 |  |  |  |  |  | 225 |  |
| 500 |  |  |  |  |  | 325 |  |
| 600 |  |  |  |  |  | 400 |  |

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