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Math 111
Group Activity: Revenue, Cost, and Profit
Objectives: Below are the graphs of total revenue and total cost, profit, and marginal revenue and marginal cost for producing and selling Things. This activity is designed to clarify how these concepts are related and to consolidate a lot of what you've already learned.




Instructions: The first column of this table gives values for you to find. Find each value and write it in the "Answer" column, including units. You should be able to find most of the values using more than one of the given graphs. In the remaining columns, describe where you see the value(s) on the indicated graph(s). For some of the cells in the table, you may write "unable to determine" if you cannot find the answer from the indicated graph. The first row is completed as an example.

| Find... | Answer (include units) | Using graphs of TR \& TC | Using graph of Profit | Using graphs of MR \& MC |
| :---: | :---: | :---: | :---: | :---: |
| fixed cost | $\sim 40$ hundred dollars or $\$ 4000$ | the " $y$ "-intercept of the $T C$ graph | the absolute value of the " $y$ "-intercept of the profit graph | unable to determine |
| marginal revenue at any quantity |  |  |  |  |
| marginal cost at $q=20$ |  |  |  |  |
| $\begin{aligned} & \text { profit } \\ & \text { at } q=10 \end{aligned}$ |  |  |  |  |
| quantities at which you break even |  |  |  |  |
| quantities at which $T R>T C$ |  |  |  |  |
| quantities at which $M R>M C$ |  |  |  |  |
| quantities at which profit is increasing |  |  |  |  |
| quantity at which profit is maximized |  |  |  |  |
| quantity at which $M R=M C$ |  |  |  |  |
| maximum profit |  |  |  |  |

