Answer on Question #70349 - Economics - Microeconomics

Task: If P = 200 - 4Q, find the revenue-maximizing quantity.

Solution:

TR (total revenue) is defined as:

$TR = PQ$, so $TR = 200Q - 4Q^2$

According to the theory, the necessary condition for any point of a function to be max is that $f`(x) = 0$,

Hence the revenue –maximizing quantity is: $TR`(q) = 0$.

$TR`(q) = (200Q - 4Q^2)` = 200 - 8Q = 0$, Q = 25

Answer: 25