PROFIT MAXIMIZATION

- Find the profit equation of a business with a revenue function of $2000x - 10x^2$ and a cost function of $2000 + 500x$. Hence find the maximum profit.

How to get the answer:

Step 1: Set profit to equal revenue minus cost. (Why?)

Step 2: Find the derivative of the profit function, set is equal to zero to find the critical points. (Why?)

Step 3: Check the nature of the critical points. (Why?)

Step 4: Find the corresponding y-coordinates for the x-value (maximum) you found in Step 3 by substituting back into the original function. (Why?)

COST MINIMIZATION

- Cost minimization problems are also can be solved using the similar method that we used to solve profit maximization problem.
- Only difference is, here we need to find the y-coordinates for the x-value (minimum) to calculate the minimum cost.