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Polynomial Project

When it comes to money-making, it is obvious that companies have the desire to earn the highest profit possible in correlation to the amount of products they have sold. With this being said, I believe that the George Martin Corporation has their best interest in mind for their investors, as well as their business. I have come up with an equation that will answer the question of: “How many beetles should the George Martin Corporation sell?”

To find the answer to the question, I formulated two equations that would give me

the amount of money the company makes and the cost. The first equation was the amount of money you make selling beetles is equal to the number of beetles you sell times the price, or the revenue, y equals -250 times x plus 1050. The profit you make will be equal to the amount of money you make minus the cost, y equals 0.4 times x minus 50, which is the second equation. I took both of these equations and integrated them into one equation. For this, I set the profit equal to the revenue minus the cost of the beetles.

The graphs for the equations are as follows:





From these equations, I found that the best deal that would give the business the highest profit would be to sell 875 beetles at the price of $0.70 per beetle. The way I got that the amount of money made, $612.50, I set y equal to 875 times $0.70. Then, I took $612.50 and subtracted $300 from it and got $312.50. Therefore, I advise the company to follow this plan in order to receive the greatest value.