

Pizza Shop



You decide to open up a pizza shop that sells only large cheese pizzas.

You estimate that its revenue will follow a specific quadratic equation.

According to that equation, if you sell your pizzas at \$10 per pizza, you will sell 100 in a day. If you decrease the price by 80 cents, you would sell 10 more pizzas per day.

A) What is the specific quadratic equation that models your shop's pizza revenue?

B) What would your revenue be if you sold the pizza for \$12

C) What price would maximize the revenue?

D) If you discovered that the cost of producing each pizza was \$3.00 and the daily operating costs were \$500, what would be the new optimal price of the pizza?