(C) The Gigamultiplex Movie Palace's current standard adult ticket price is $12. The theater is currently selling 2500 tickets on a typical day. By surveying their customers, the management projects that each $0.25 increase in the adult ticket price will reduce the number of tickets sold by 20.

1) Is this a situation for a linear model or an exponential model? Why?
2) Let P be the price of a standard adult ticket. Give a formula for the number of tickets sold as a function of P according to the management's projection.
3) How would find the total ticket sales revenue generated as a function of the price? What price will yield the largest ticket sales revenue?