

Ex 1 Exploring a new “dynamic pricing” scheme, a company determines that the rate of change in monthly demand of a product is given by $\frac{dq}{dp} = -12pe^{-0.5p^2}$, where q is thousands of units sold and p is the unit price in dollars. Find a function to represent the total number of units sold each month at a unit price of p dollars if the potential market (number of units sold if the product were free) is 14 thousand units.

Ex 2 A company’s production changes at a rate of $\frac{4}{3t+1}$ thousand items per month, t months after the product’s public release. Find the total change in production between three months and six months after release.