

1.7

(34)

$$R(p) = 10p - p^2$$

p = price \$

R = thousands \$ per day

increase p .05 each yr.

t = time (yrs.)

p = .25 starts

$$p(t) = .25 + .05t \text{ plug that in for } p$$

$$R(1) = 10(.25) - (.25)^2$$

$$R(2) = 10(.30) - (.25)^2$$

$$R(t) = 10(.25 + .05t) - (.25 + .05t)^2$$

We know that p increases .05 every year (t), so if $p(t) = .25 + .05t$ and you plug that in for p then the equation for the revenue function is:

$$R(t) = 10(.25 + .05t) - (.25 + .05t)^2$$