Homefun:

page 500 #6, 8, 10, 11, 12, 15

p 508 #9

a) $P = P_0(b)^t$ ... population decreases by 1.8% so $100\% - 1.8\% = 98.2\%$

P_0 = initial Pop. $b = 0.982$

$\therefore P = 12000(0.982)^t$

b) IRoC @ $t = 10$ use $h = 0.001$

$$DQ = \frac{P(10.001) - P(10)}{.001} = -180.93$$

$\therefore$ Population decreases @ 180 ppl./yr

c) find t when $P = 6000$

$6000 = 12000(.982)^t$

$0.5 = .982^t$

$t = 38.16$

$$DQ = \frac{P(38.161) - P(38.16)}{.001}$$

$= -108.62$

$\therefore$ Pop $\downarrow$ by 108 ppl/yr