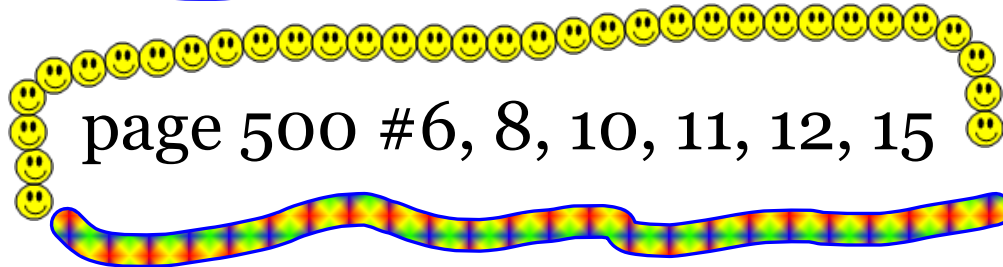


Homefun:



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P 508 #9

a) $P = P_0 (b)^t$... population decreases by 1.8% so
 \uparrow initial pop. $100\% - 1.8\% = 98.2\%$
 $b = 0.982$
 $\therefore P = 12000 (0.982)^t$

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

$$DQ = \frac{P(10.001) - P(10)}{0.001} = -180.93$$

\therefore Population decreases @ 180 ppl./yr

c) find t when $P = 6000$

$$6000 = 12000 (.982)^t$$

$$0.5 = .982^t$$

$$t = 38.16$$

$$DQ = \frac{P(38.161) - P(38.16)}{0.001}$$

$$= -108.62$$

\therefore Pop \downarrow by 108 ppl./yr