

FIGURE 2.1 The qualitative behavior of $u_n = Ck^n$ for different ranges of k , namely, $-1 \leq k \leq 1$.

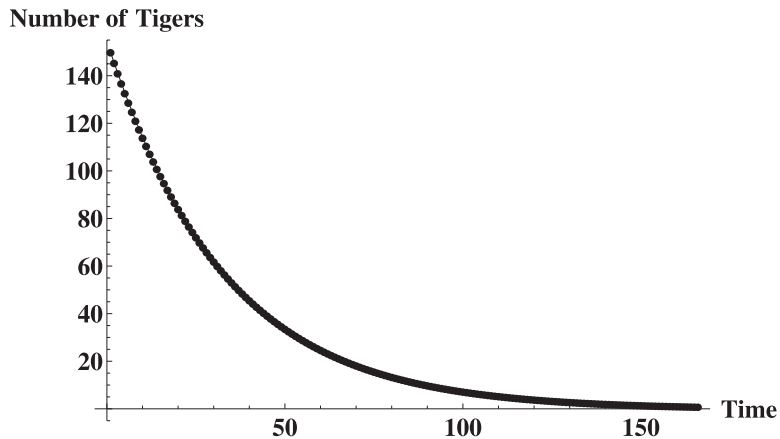


FIGURE 2.2 Royal Bengal tigers will be extinct in approximately 165 years for $k = 0.97$.

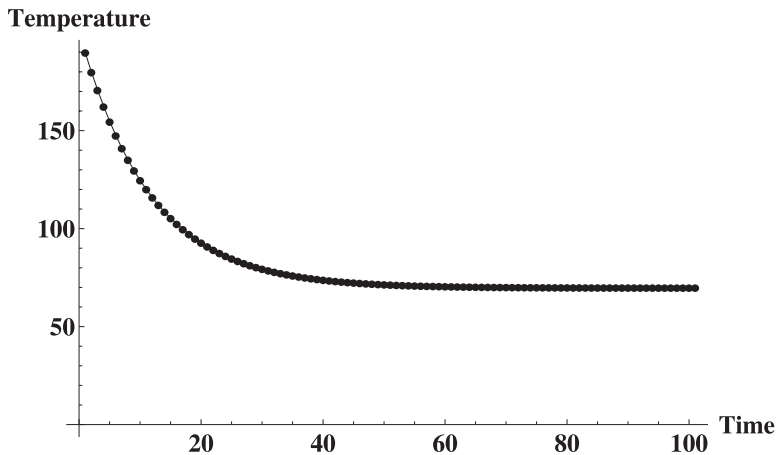


FIGURE 2.3 The cup of coffee initially at 190°F reaches the room temperature of 70°F as n increases.

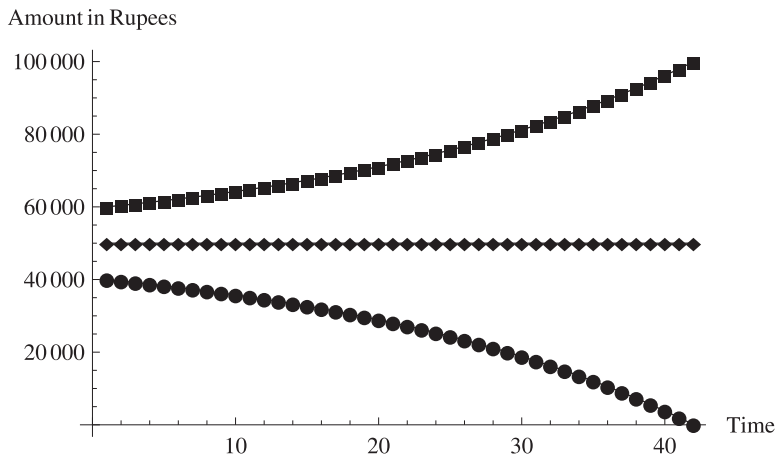


FIGURE 2.4 The amount of money as time increases when the initial deposits $a_0 > 50000$, $a_0 = 50000$ and $a_0 < 50000$.

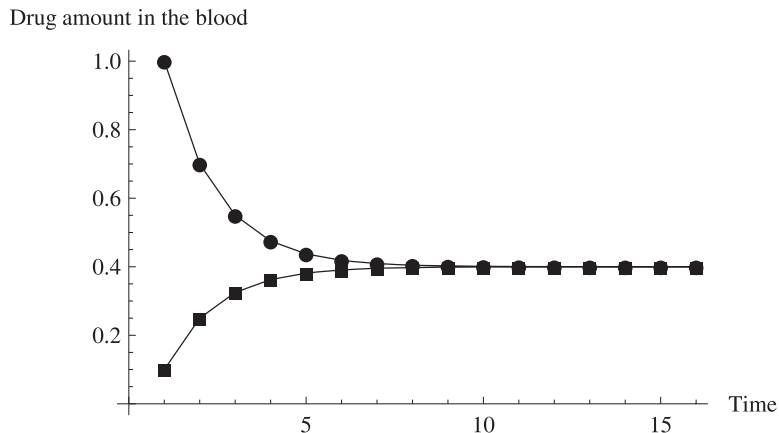


FIGURE 2.5 The amount of drug in a patient's bloodstream always reaches the steady state value 0.4, independent of the initial value a_0 , implying a stable equilibrium.

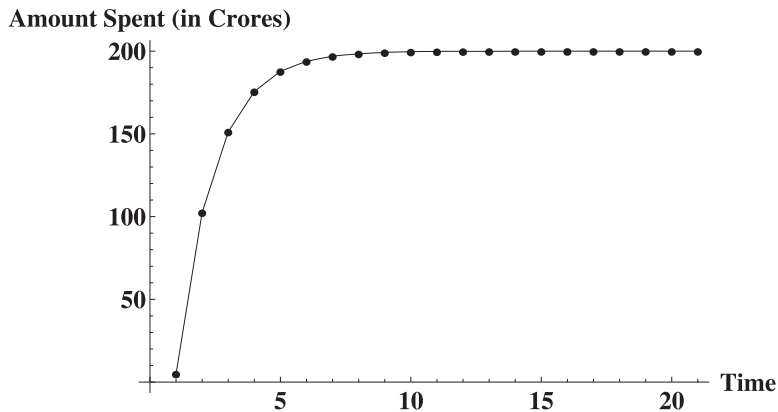


FIGURE 2.6 The amount of money spent by both the countries on arms reaches a steady state value with increasing time. Parameter values $g = 0.6$, $d = 0.1$ and $k = 100$.

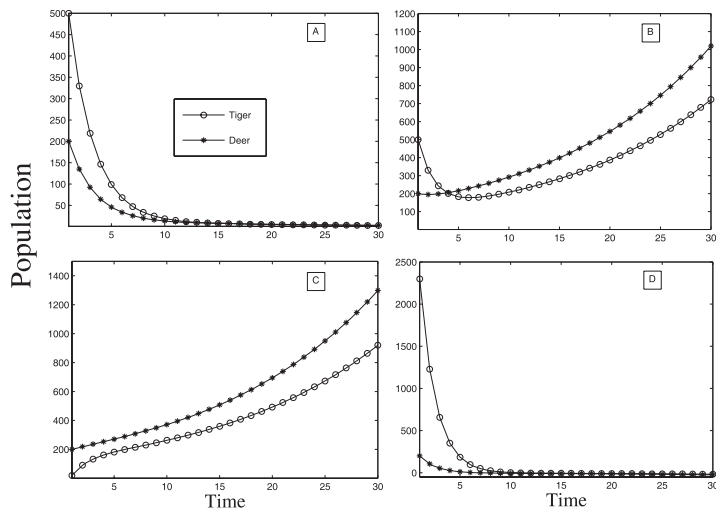


FIGURE 2.7 Different behaviors of tiger and deer populations with changing parameter values and initial conditions.

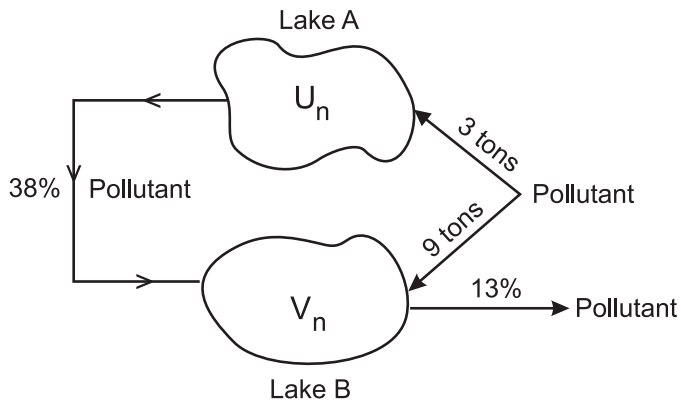


FIGURE 2.8 The schematic diagram of Problem 2.5.3, where U_n and V_n are the total amount of pollutant in lakes A and B respectively, in year n .

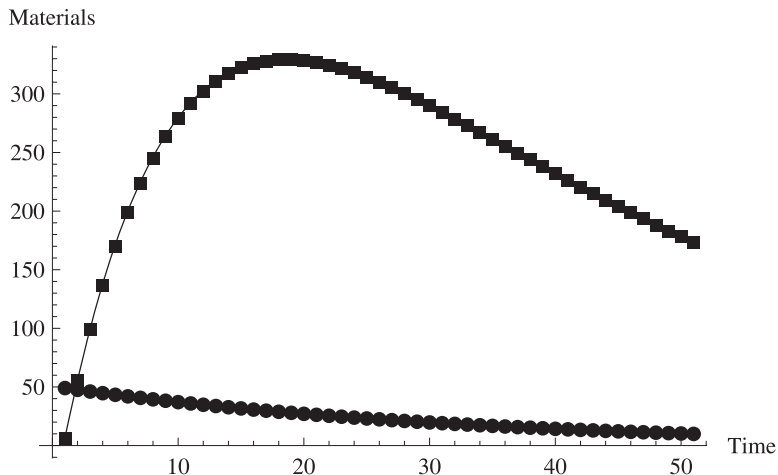


FIGURE 2.9 The behavior of material $A(n)$ and material $B(n)$ with respect to time in days.

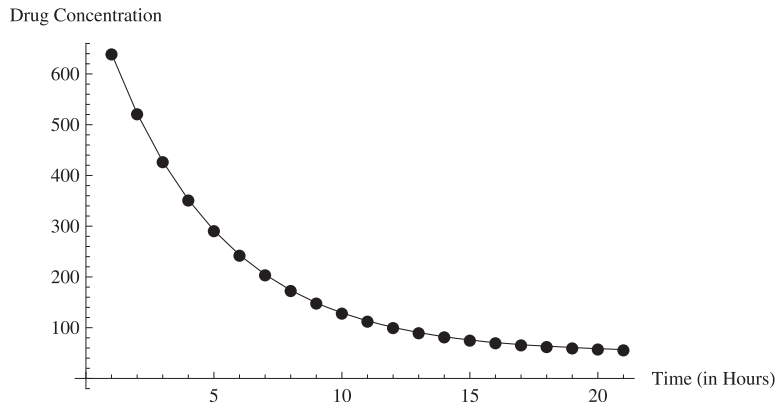


FIGURE 2.10 The behavior of the concentration of drugs $C(n)$ with respect to time in hours.

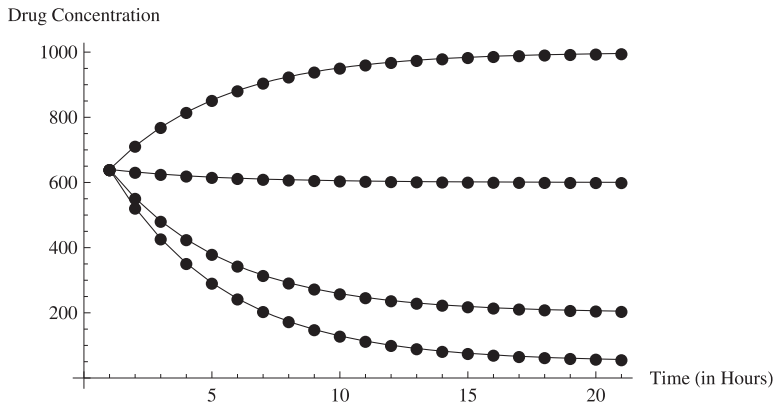


FIGURE 2.11 The effect of different maintenance doses, namely, $x = 10, 40, 120, 200$ on the concentration of drugs C_n .