

Simulated Annealing 13th OCT 18

1. Initialize $T_0 = 15$, $n = 7$, $L = 20$, $\epsilon = 10^{-2}$
Matrix M (use the earlier given to you)
 $x = (1 \ 7 \ 2 \ 4 \ 6 \ 5 \ 3)$; $\&$ initial solution
 $f_x = \text{eval}(x)$ $\&$ distance calculation
2. While $T > \epsilon$ do
 3. For $i = 1$ to L do
 - 3.1 $n1 = 1 + \text{floor}(\text{rand} \times 7)$; $n2 = 1 + \text{floor}(7 \times \text{rand})$
 - 3.2 while $n1 = n2$ do $n1 = 1 + \text{floor}(7 \times \text{rand})$
end while
 - 3.3 $y = x$; $\text{Temp} = y(n1)$; $y(n1) = y(n2)$; $y(n2) = \text{Temp}$
 - 3.4 Temp ; $f_y = \text{eval}(y)$
 4. If $f_y < f_x$ then $x = y$; $f_x = f_y$
elseif $\text{random} < e^{-(f_y - f_x)/T}$ then
 $x = y$; $f_x = f_y$
endif
5. $T = 0.9 T$
end while