Problem 7.1

Recurrence relation for Travel Plans

Let TP(i, t, d) give the minimum cost from index i for a journey of length t and a maximum daily travel distance d. TP should also have access to an array of hotels C which starts and ends with values 0 and has a length of $t + 1$.

$$TP(i,t,d) = \begin{cases} C(i) & \text{if } t \leq d \\ C(i) + min(TP(i+1, t-1, d), & \\ \qquad TP(i+2, t-3, d), \ldots, & \\ \qquad TP(i+d, t-d, d)) & \text{otherwise} \end{cases}$$