Jump game V

Input

arr : array of integers

Visualize arr[i] as a step of size arr[i] at position i

d : integer

think of d as the max dist you can jump

Can jump from pos i to $\left.\begin{matrix} \text{pos } i+x \\ \text{or} \\ \text{pos } i-x \end{matrix}\right\}$ "j"

provided

(a) $0 < x \leq d$ and $i+x$ / $i-x$ invalid index in array

(b) arr[i] > arr[k] $\forall$ k between i, j

and

arr[i] > arr[j]

Output: max # of indices you can visit (you can start anywhere you want)

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eg:

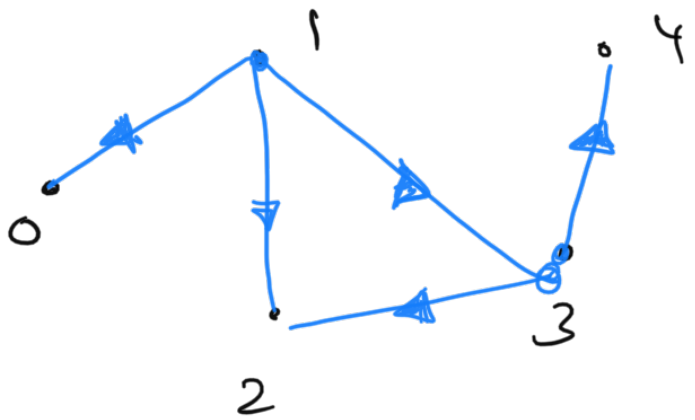
arr = [7, 9, 1, 5, 2] , d = 2

eg input

graph : positions ⟷ nodes

connect pos and pos' with edge of weight 1 if you can jump from pos to pos'

↳ this gives a DAG



↳ Output longest path in DAG +1

(because you are counting # of vertices visited)