

**Question-1**

Given a value  $V$ , if we want to make a change for  $V$  Rupees, and we have an infinite supply of each of the denominations in Indian currency, i.e., we have an infinite supply of  $\{1, 2, 5, 10, 20, 50, 100, 500, 1000\}$  valued coins/notes, what is the minimum number of coins and/or notes needed to make the change?

Input:  $V = 70$

Output: 2

We need a 50 Rs note and a 20 Rs note.

Input:  $V = 121$

Output: 3

We need a 100 Rs note, a 20 Rs note and a 1 Rs coin.

**Question-2**

Given arrival and departure times of all trains that reach a railway station, the task is to find the minimum number of platforms required for the railway station so that no train waits. We are given two arrays which represent arrival and departure times of trains that stop.

Input:

$arr[] = \{900, 940, 950, 1100, 1500, 1800\}$

$dep[] = \{910, 1200, 1120, 1130, 1900, 2000\}$

Output: 3

Explanation: There are at-most three trains at a time (time between 1100 and 1120)