



coin = [1, 5, 2, 1]

n = 12

dp = [0, 1, 1, 2, 2, 1, 2, 1, 2, 2, 3, 2]

5

9

for m in range(1, 13): // i = 1 ~ 12

for c in coin:

if c <= m and dp[m-c] + 1 < dp[m]:

dp[m] = dp[m-c] + 1

print(dp[-1])

① m = 1

#1. c = 1

if 1 <= 1 and dp[1-1] + 1 < dp[1]

dp[1] = dp[0] + 1 = 1 (1원 1개)

④ m = 6

#1. c = 5

if 5 <= 6 and dp[6-5] + 1 < dp[6]

dp[6] = dp[1] + 1 = 2 (1원 1개, 5원 1개)

② m = 2

#1. c = 2

if 2 <= 2 and dp[2-2] + 1 < dp[2]

dp[2] = dp[0] + 1 = 1 (2원 1개)

⑤ m = 7

#1. c = 7

if 7 <= 7 and dp[7-7] + 1 < dp[7]

dp[7] = dp[0] + 1 = 1 (7원 1개)

③ m = 3

#1. c = 2

if 2 <= 3 and dp[3-2] + 1 < dp[3]

dp[3] = dp[1] + 1 = 2 (1원 1개, 2원 1개)

⑥ m = 8

#1. c = 7

if 7 <= 8 and dp[8-7] + 1 < dp[8]

dp[8] = dp[1] + 1 = 2 (7원 1개, 1원 1개)

③ m = 4

#1. c = 2

if 2 <= 4 and dp[4-2] + 1 < dp[4]

dp[4] = dp[2] + 1 = 2 (2원 1개, 2원 1개)

⑦ m = 9

#1. c = 7

if 7 <= 9 and dp[9-7] + 1 < dp[9]

dp[9] = dp[2] + 1 = 2 (2원 1개, 7원 1개)

④ m = 5

#1. c = 5

if 5 <= 5 and dp[5-5] + 1 < dp[5]

dp[5] = dp[0] + 1 = 1 (5원 1개)

⑧ $m=10$

#1. $c=7$

if $7 \leq 10$ and $dp[10-7] + 1 < dp[10]$

$$dp[10] = dp[3] + 1 = 3 \quad (3\text{원 } 1\text{개}, 7\text{원 } 1\text{개})$$

#2. $c=5$

if $5 \leq 10$ and $dp[10-5] + 1 < dp[10]$

$$dp[10] = dp[5] + 1 = 2 \quad (5\text{원 } 2\text{개})$$

⑨ $m=11$

#1. $c=7$

if $7 \leq 11$ and $dp[11-7] + 1 < dp[11]$

$$dp[11] = dp[4] + 1 = 3 \quad (4\text{원 } 1\text{개}, 7\text{원 } 1\text{개})$$

⑩ $m=12$

#1. $c=7$

if $7 \leq 12$ and $dp[12-7] + 1 < dp[12]$

$$dp[12] = dp[5] + 1 = 2 \quad (5\text{원 } 1\text{개}, 7\text{원 } 1\text{개})$$