

```
1 num_sides, num_dice, target = 6, 2, 7
2 dp = [[0] * (target + 1) for _ in range
        (num_dice + 1)]
3 dp[0][0] = 1
4
5 for dice in range(1, num_dice + 1):
6     for t in range(1, target + 1):
7         dp[dice][t] = sum(dp[dice - 1][t - s]
                             for s in range(1, min(num_sides, t)
                             + 1))
8
9 print(dp[num_dice][target])
10
```

6

=== Code Execution Successful ===

```
1 n = 4
2 a1 = [4, 5, 3, 2]
3 a2 = [2, 10, 1, 4]
4 t1 = [0, 7, 4, 5]
5 t2 = [0, 9, 2, 8]
6 e1, e2 = 10, 12
7 x1, x2 = 18, 7
8
9 time1 = [0] * n
10 time2 = [0] * n
11
12 time1[0] = e1 + a1[0]
13 time2[0] = e2 + a2[0]
14
15 for i in range(1, n):
16     time1[i] = min(time1[i-1] + a1[i], time2[i-1] + t2[i] + a1[i])
17     time2[i] = min(time2[i-1] + a2[i], time1[i-1] + t1[i] + a2[i])
18
19 min_time = min(time1[-1] + x1, time2[-1] + x2)
20 print(min_time)
```

35

=== Code Execution Successful ===

```

1  n = 3
2  a1 = [5, 9, 3]
3  a2 = [6, 8, 4]
4  a3 = [7, 6, 5]
5  t12 = [0, 1, 1]
6  t13 = [0, 2, 2]
7  t21 = [0, 2, 2]
8  t23 = [0, 1, 1]
9  t31 = [0, 2, 2]
10 t32 = [0, 1, 1]
11
12 time1 = [0] * n
13 time2 = [0] * n
14 time3 = [0] * n
15
16 time1[0] = a1[0]
17 time2[0] = a2[0]
18 time3[0] = a3[0]
19
20 for i in range(1, n):
21     time1[i] = min(time1[i-1] + a1[i], time2[i-1] + t21[i] + a1[i], time3[i-1] + t31[i] + a1[i])
22     time2[i] = min(time2[i-1] + a2[i], time1[i-1] + t12[i] + a2[i], time3[i-1] + t32[i] + a2[i])
23     time3[i] = min(time3[i-1] + a3[i], time1[i-1] + t13[i] + a3[i], time2[i-1] + t23[i] + a3[i])
24
25 min_time = min(time1[-1], time2[-1], time3[-1])
26 print(min_time)

```

17

=== Code Execution Successful ===

```

1 n = 4
2 dist = [
3     [0, 10, 15, 20],
4     [10, 0, 35, 25],
5     [15, 35, 0, 30],
6     [20, 25, 30, 0]
7 ]
8
9 dp = [[-1] * n for _ in range(1 << n)]
10
11 def tsp(mask, pos):
12     if mask == (1 << n) - 1:
13         return dist[pos][0]
14     if dp[mask][pos] != -1:
15         return dp[mask][pos]
16
17     ans = float('inf')
18     for city in range(n):
19         if not (mask & (1 << city)):
20             new_ans = dist[pos][city] + tsp
21                 (mask | (1 << city), city)
22             ans = min(ans, new_ans)
23
24     dp[mask][pos] = ans
25     return ans
26 print(tsp(1, 0))

```

80

=== Code Execution Successful ===

```

1 n = 5
2 dist = [
3     [0, 10, 15, 20, 25],
4     [10, 0, 35, 25, 30],
5     [15, 35, 0, 30, 20],
6     [20, 25, 30, 0, 15],
7     [25, 30, 20, 15, 0]
8 ]
9
10 dp = [[-1] * n for _ in range(1 << n)]
11
12 def tsp(mask, pos):
13     if mask == (1 << n) - 1:
14         return dist[pos][0]
15     if dp[mask][pos] != -1:
16         return dp[mask][pos]
17
18     ans = float('inf')
19     for city in range(n):
20         if not (mask & (1 << city)):
21             ans = min(ans, dist[pos][city] +
22                       tsp(mask | (1 << city), city))
23
24     dp[mask][pos] = ans
25     return ans
26
27 print(tsp(1, 0))

```

85

=== Code Execution Successful ===

```
s = "abcabcbb"
max_len = 0
start = 0
used_chars = {}
for i, char in enumerate(s):
    if char in used_chars and start <=
        used_chars[char]:
        start = used_chars[char] + 1
    else:
        max_len = max(max_len, i - start + 1)
        used_chars[char] = i
print(max_len)
```

3

=== Code Execution Successful ===

```
1 s = "abcabcbb"
2 max_len, start, used = 0, 0, {}
3 for i, c in enumerate(s):
4     if c in used and used[c] >= start:
5         start = used[c] + 1
6     max_len = max(max_len, i - start + 1)
7     used[c] = i
8 print(max_len)
9
```

3

=== Code Execution Successful ===

```
1 s = "leetcode"
2 wordDict = ["leet", "code"]
3 dp = [False] * (len(s) + 1)
4 dp[0] = True
5 for i in range(1, len(s) + 1):
6     for w in wordDict:
7         if dp[i - len(w)] and s[i - len(w):i]
            == w:
8             dp[i] = True
9 print(dp[-1])
10
```

True

=== Code Execution Successful ===


```
1 s = "ilike"
2 wordDict = {"i", "like", "sam", "sung",
              "samsung", "mobile", "ice", "cream",
              "icecream", "man", "go", "mango"}
3 dp = [False] * (len(s) + 1)
4 dp[0] = True
5 for i in range(1, len(s) + 1):
6     for j in range(i):
7         if dp[j] and s[j:i] in wordDict:
8             dp[i] = True
9 print("Yes" if dp[-1] else "No")
```

Yes

=== Code Execution Successful ===

```

1 words = ["This", "is", "an", "example", "of",
           "text", "justification."]
2 maxWidth = 16
3 res, line, l = [], [], 0
4 for w in words:
5     if l + len(w) + len(line) > maxWidth:
6         for i in range(maxWidth - 1):
7             line[i % (len(line) - 1 or 1)] += ' '
8             res.append(' '.join(line))
9             line, l = [], 0
10    line += [w]
11    l += len(w)
12 res.append(' '.join(line).ljust(maxWidth))
13 print(res)
14

```

```

['This   is   an', 'example of text',
 'justification. ']

```

=== Code Execution Successful ===

```
1 words = ["apple"]
2 pref, suff = "a", "e"
3 result = max((i for i, word in enumerate(words)
4               if word.startswith(pref) and word.endswith
5               (suff)), default=-1)
6 print(result)
```

0

=== Code Execution Successful ===