

```
1 def min_operations(arr1, arr2):
2     n, m = len(arr1), len(arr2)
3     dp = [[float('inf')] * (m + 1) for _ in range(n + 1)]
4     dp[0][0] = 0
5
6     for i in range(1, n + 1):
7         for j in range(1, m + 1):
8             if arr1[i - 1] > dp[i - 1][j - 1]:
9                 dp[i][j] = min(dp[i][j], dp[i - 1][j - 1])
10            if arr2[j - 1] > dp[i - 1][j - 1]:
11                dp[i][j] = min(dp[i][j], dp[i - 1][j - 1] + 1)
12
13     result = min(dp[n])
14     return result if result != float('inf') else -1
15
16 arr1 = [1, 5, 3, 6, 7]
17 arr2 = [1, 3, 2, 4]
18 print(min_operations(arr1, arr2))
19
```

main.py

```
1 def min_repeats(a, b):
2     if b in a:
3         return 1
4     for i in range(1, len(b)):
5         if b.startswith(a[i:]):
6             return 1 + min_repeats(a, b[i:])
7     return -1
8
9 a = "abcd"
10 b = "cdabcdab"
11 output = min_repeats(a, b)
12 print(output)
13
```

     input

3

```
...Program finished with exit code 0
Press ENTER to exit console.
```

main.py

```
1 def missing_number(nums):  
2     n = len(nums)  
3     total_sum = n * (n + 1) // 2  
4     actual_sum = sum(nums)  
5     return total_sum - actual_sum
```

```
6  
7 nums = [3, 0, 1]  
8 print(missing_number(nums))  
9
```

input

2

```
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Press ENTER to exit console.
```

main.py

```

1 from collections import deque
2
3 def updateMatrix(mat):
4     rows, cols = len(mat), len(mat[0])
5     queue = deque()
6     for i in range(rows):
7         for j in range(cols):
8             if mat[i][j] == 0:
9                 queue.append((i, j))
10            else:
11                mat[i][j] = float('inf')
12        directions = [(0, 1), (0, -1), (1, 0), (-1, 0)]
13        while queue:
14            cell = queue.popleft()
15            for d in directions:
16                new_i, new_j = cell[0] + d[0], cell[1] + d[1]
17                if 0 <= new_i < rows and 0 <= new_j < cols and mat[new_i][new_j] > mat[cell[0]][cell[1]] + 1:
18                    mat[new_i][new_j] = mat[cell[0]][cell[1]] + 1
19                    queue.append((new_i, new_j))
20        return mat
21
22 mat1 = [[0, 0, 0], [0, 1, 0], [0, 0, 0]]
23 mat2 = [[0, 0, 0], [0, 1, 0], [1, 1, 1]]
24
25 print(updateMatrix(mat1))
26 print(updateMatrix(mat2))
27

```






 input

```

[[0, 0, 0], [0, 1, 0], [0, 0, 0]]
[[0, 0, 0], [0, 1, 0], [1, 2, 1]]

```

```

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Press ENTER to exit console.

```



```
1 def stringMatching(words):  
2     return [word for word in words if any(other_word.find(word) != -1 for other_word in words if word != other_word)]  
3  
4 words = ["mass", "as", "hero", "superhero"]  
5 print(stringMatching(words))  
6
```

['as', 'hero']

...Program finished with exit code 0
Press ENTER to exit console.

main.py

```
1 def minOperations(nums):
2     stack = []
3     for num in nums:
4         if stack and num < stack[-1]:
5             stack.pop()
6         else:
7             stack.append(num)
8     return len(stack)
9
10 nums = [1, 2, 3, 4, 5, 6]
11 print(minOperations(nums))
12
```

Input

6

...Program finished with exit code 0
Press ENTER to exit console.

main.py

```
1 def isPrefixOfWord(sentence, searchWord):
2     words = sentence.split()
3     for i, word in enumerate(words, 1):
4         if word.startswith(searchWord):
5             return i
6     return -1
7
8 sentence = "i love eating burger"
9 searchWord = "love"
10 print(isPrefixOfWord(sentence, searchWord))
11
```



Input

2

...Program finished with exit code 0
Press ENTER to exit console.



main.py

```
1 def find_nth_digit(n):
2     length = 1
3     count = 9
4     start = 1
5
6     while n > length * count:
7         n -= length * count
8         length += 1
9         count *= 10
10        start *= 10
11
12    start += (n - 1) // length
13    s = str(start)
14    return int(s[(n - 1) % length])
15
16 n = 15
17 print(find_nth_digit(n))
18
```

input

```
2
...Program finished with exit code 0
Press ENTER to exit console.
```


main.py

```
1 def transpose(matrix):  
2     return [list(row) for row in zip(*matrix)]  
3  
4 matrix = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]  
5 print(transpose(matrix))  
6
```

input

```
[[1, 4, 7], [2, 5, 8], [3, 6, 9]]
```

```
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Press ENTER to exit console.
```

```
1 MOD = 10**9 + 7
2
3 def count_good_strings(s1, s2, evil):
4     n = len(s1)
5     m = len(evil)
6
7     def next_state(state, char):
8         while state > 0 and evil[state] != char:
9             state = kmp[state - 1]
10        if evil[state] == char:
11            state += 1
12        return state
13
14    def dp(idx, state, tight1, tight2):
15        if state == m:
16            return 0
17        if idx == n:
18            return 1
19        if memo[idx][state][tight1][tight2] != -1:
20            return memo[idx][state][tight1][tight2]
21
22        low = s1[idx] if tight1 else 'a'
23        high = s2[idx] if tight2 else 'z'
24
25        result = 0
26        for c in range(ord(low), ord(high) + 1):
27            new_tight1 = tight1 and (c == ord(low))
28            new_tight2 = tight2 and (c == ord(high))
29            new_state = next_state(state, chr(c))
```

input

0

...Program finished with exit code 0
Press ENTER to exit console.