

MUSTAQIL ISHLASH UCHUN MASALALAR YECHIMLARI

1-masala. Yechim (heapq, K-way merge)

```
import heapq

n, m, K = map(int, input().split())
A = list(map(int, input().split()))
B = list(map(int, input().split()))

A.sort()
B.sort()

h = []
for i in range(n):
    heapq.heappush(h, (A[i] + B[0], i, 0))

ans = None
for _ in range(K):
    s, i, j = heapq.heappop(h)
    ans = s
    if j + 1 < m:
        heapq.heappush(h, (A[i] + B[j + 1], i, j + 1))

print(ans)
```

2-masala. Yechim (math.lcm + tekshiruv)

```
import math

n = int(input())
a = list(map(int, input().split()))

l = 1
for x in a:
    l = math.lcm(l, x)
    if len(str(l)) > 100:
        print(-1)
        exit()

print(l)
```

3-masala. Yechim (bisect)

```
import bisect

n = int(input())
a = list(map(int, input().split()))

q = int(input())
for _ in range(q):
    l, r = map(int, input().split())
    left = bisect.bisect_left(a, l)
```

```
right = bisect.bisect_right(a, r)
print(right - left)
```

4-masala. Yechim (Counter)

```
from collections import Counter

n, K = map(int, input().split())
a = list(map(int, input().split()))

cnt = Counter(a)
ans = -1
for x in cnt:
    if cnt[x] <= K:
        ans = max(ans, x)

print(ans)
```

5-masala. Yechim (BFS + holat)

```
from collections import deque

n, m = map(int, input().split())
grid = [list(map(int, input().split())) for _ in range(n)]

dist = [[[-1]*2 for _ in range(m)] for _ in range(n)]
dq = deque([(0, 0, 0)])
dist[0][0][0] = 0

dx = [1, -1, 0, 0]
dy = [0, 0, 1, -1]

while dq:
    x, y, b = dq.popleft()
    for k in range(4):
        nx, ny = x + dx[k], y + dy[k]
        if 0 <= nx < n and 0 <= ny < m:
            if grid[nx][ny] == 0 and dist[nx][ny][b] == -1:
                dist[nx][ny][b] = dist[x][y][b] + 1
                dq.append((nx, ny, b))
            if grid[nx][ny] == 1 and b == 0 and dist[nx][ny][1]
== -1:
                dist[nx][ny][1] = dist[x][y][b] + 1
                dq.append((nx, ny, 1))

res = []
for b in (0, 1):
    if dist[n-1][m-1][b] != -1:
        res.append(dist[n-1][m-1][b])

print(min(res) if res else -1)
```

6-masala. Yechim (Counter + heapq)

```

from collections import Counter
import heapq

n, K = map(int, input().split())
a = list(map(int, input().split()))

cnt = Counter(a)
h = [(-cnt[x], x) for x in cnt]
heapq.heapify(h)

res = []
for _ in range(min(K, len(h))):
    c, x = heapq.heappop(h)
    res.append(x)

print(*res)

```

7-masala. Yechim (sliding window + dict)

```

n, K = map(int, input().split())
a = list(map(int, input().split()))

cnt = {}
l = 0
ans = 0

for r in range(n):
    cnt[a[r]] = cnt.get(a[r], 0) + 1
    while cnt[a[r]] > K:
        cnt[a[l]] -= 1
        l += 1
    ans = max(ans, r - l + 1)

print(ans)

```

8-masala. Yechim (math.comb)

```

import math

n, m = map(int, input().split())
print(math.comb(n + m - 2, n - 1))

```

9-masala. Yechim (median)

```

n = int(input())
a = list(map(int, input().split()))

a.sort()
med = a[n // 2]
ans = sum(abs(x - med) for x in a)
print(ans)

```

10-masala. Yechim (sys.stdin + Counter)

```
import sys
from collections import Counter

input = sys.stdin.readline

n = int(input())
words = [input().strip() for _ in range(n)]
cnt = Counter(words)

q = int(input())
for _ in range(q):
    print(cnt[input().strip()])
```