```python
piles = [2, 4, 1, 2, 7, 8]
piles.sort(reverse=True)
print(sum(piles[i] for i in range(1, len(piles), 2)[:len(piles)//3]))

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
9

[Done] exited with code=0 in 0.134 seconds
```

```python
coins, target, added = [1, 4, 10], 19, 0
coins.sort()
for coin in coins:
    if coin <= target: target -= coin; added += 1
print(added)

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
[Done] exited with code=0 in 0.134 seconds

[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
3

[Done] exited with code=0 in 0.137 seconds
```

```python
jobs, k = [1, 2, 4, 7, 8], 2
print(max(sum(sorted(jobs)[i::k]) for i in range(k)))

```

Run Code (Ct

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Code

```
[Done] exited with code=0 in 0.137 seconds

[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
13

[Done] exited with code=0 in 0.155 seconds
```

```python

from bisect import bisect_right as br
start, end, profit = [1, 2, 3, 4, 6], [3, 5, 10, 6, 9], [20, 20, 100, 70
dp = [0] * (len(profit) + 1)
for i in range(len(profit)):
    dp[i + 1] = max(dp[i], profit[i] + dp[br(end, start[i])])
print(dp[-1])

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Code

```
[Done] exited with code=0 in 0.155 seconds

[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
120

[Done] exited with code=0 in 0.148 seconds
```

```python
import heapq
graph, n, src = [[0, 10, 3, float('inf')], [float('inf'), 0, 1, 2], [float('inf'), 4, 0, 8]], 4, 0
dist, heap = [float('inf')] * n, [(0, src)]
dist[src] = 0
while heap:
    d, u = heapq.heappop(heap)
    for v, w in enumerate(graph[u]):
        if d + w < dist[v]: dist[v] = d + w; heapq.heappush(heap, (dist[v], v))
print(dist)

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Code

```
[Done] exited with code=0 in 0.148 seconds

[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
[0, 7, 3, 9]

[Done] exited with code=0 in 0.155 seconds
```

```python
import heapq
edges, src, target = [(0, 1, 10), (0, 4, 3), (1, 2, 2)], 0, 3
dist, heap = {i: float('inf') for i in range(6)}, [(0, src)]
dist[src] = 0
while heap:
    d, u = heapq.heappop(heap)
    for v, w in [(y, z) for x, y, z in edges if x == u]:
        if d + w < dist[v]: dist[v] = d + w; heapq.heappush(heap, (dist[v], v))
print(dist[target])

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Code

```
[Done] exited with code=0 in 0.125 seconds

[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
inf

[Done] exited with code=0 in 0.129 seconds
```

```python
import heapq
from collections import defaultdict
freq = {'a': 5, 'b': 9, 'c': 12, 'd': 13}
heap = [[wt, [ch, ""]] for ch, wt in freq.items()]
heapq.heapify(heap)
while len(heap) > 1:
    lo, hi = heapq.heappop(heap), heapq.heappop(heap)
    for pair in lo[1:]: pair[1] = '0' + pair[1]
    for pair in hi[1:]: pair[1] = '1' + pair[1]
    heapq.heappush(heap, [lo[0] + hi[0]] + lo[1:] + hi[1:])
print(sorted(heapq.heappop(heap)[1:], key=lambda p: (len(p[-1]), p)))

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Code

```
[Done] exited with code=0 in 0.129 seconds

[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
[['a', '00'], ['b', '01'], ['c', '10'], ['d', '11']]

[Done] exited with code=0 in 0.156 seconds
```

```python
encoded = "1101100111110"
code_map = {'a': '110', 'b': '10', 'c': '0', 'd': '111'}
rev_map = {v: k for k, v in code_map.items()}
res, temp = '', ''
for bit in encoded:
    temp += bit
    if temp in rev_map:
        res += rev_map[temp]
        temp = ''
print(res)

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Code

```
[Done] exited with code=0 in 0.156 seconds

[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
aacda

[Done] exited with code=0 in 0.13 seconds
```

```python
def max_weight(weights, max_capacity):
    weights.sort(reverse=True)  # Sort the weights in descending order
    current_weight = 0

    for weight in weights:
        if current_weight + weight <= max_capacity:
            current_weight += weight

    return current_weight

# Test Case 1
weights1 = [10, 20, 30, 40, 50]
max_capacity1 = 60
print(max_weight(weights1, max_capacity1))  # Output: 50

# Test Case 2
weights2 = [5, 10, 15, 20, 25, 30]
max_capacity2 = 50
print(max_weight(weights2, max_capacity2))  # Output: 50
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Code

```
[Done] exited with code=0 in 0.158 seconds

[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
60
50

[Done] exited with code=0 in 0.111 seconds
```

```python
def min_containers(weights, max_capacity):
    weights.sort(reverse=True)  # Sort weights in descending order
    containers = 0

    while weights:
        current_capacity = 0
        for weight in weights[:]:  # Iterate through a copy of the list
            if current_capacity + weight <= max_capacity:
                current_capacity += weight
                weights.remove(weight)  # Remove the item from the original list
        containers += 1

    return containers

# Test Case 1
weights1 = [5, 10, 15, 20, 25, 30, 35]
max_capacity1 = 50
print(min_containers(weights1, max_capacity1))  # Output: 4

# Test Case 2
weights2 = [10, 20, 30, 40, 50, 60, 70, 80]
max_capacity2 = 100
print(min_containers(weights2, max_capacity2))  # Output: 6
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Code

```
[Done] exited with code=0 in 0.111 seconds

[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
3
4

[Done] exited with code=0 in 0.138 seconds
```

```python
from heapq import heapify, heappop
edges, mst, n = [(0, 1, 2), (0, 3, 6), (1, 2, 3)], [], 4
heapify(edges)
while len(mst) < n - 1:
    u, v, w = heappop(edges)
    mst.append((u, v, w))
print(mst)

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Code

```
[Done] exited with code=0 in 0.138 seconds

[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
[(0, 1, 2), (0, 3, 6), (1, 2, 3)]

[Done] exited with code=0 in 0.068 seconds
```

```python
def find(parent, x):
    if parent[x] != x: parent[x] = find(parent, parent[x])
    return parent[x]

def kruskal(n, edges):
    edges.sort(key=lambda x: x[2])
    parent, rank, mst = list(range(n)), [0] * n, []
    for u, v, w in edges:
        pu, pv = find(parent, u), find(parent, v)
        if pu != pv:
            if rank[pu] > rank[pv]: parent[pv] = pu
            else: parent[pu] = pv; rank[pv] += rank[pu] == rank[pv]
            mst.append((u, v, w))
    return mst

# Check if MST is unique
def is_unique_mst(n, edges, mst):
    return sum(w for _, _, w in kruskal(n, edges)) == sum(w for _, _, w in mst)

# Test Cases
print(is_unique_mst(4, [(0,1,10),(0,2,6),(0,3,5),(1,3,15),(2,3,4)], [(2,3,4),(0,3,5),(0,1,10)]))  # True
print(is_unique_mst(5, [(0,1,1),(0,2,1),(1,3,2),(2,3,2),(3,4,3),(4,2,3)], [(0,1,1),(0,2,1),(1,3,2),(3,4,3)]))  # False

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
[Done] exited with code=1 in 0.082 seconds

[Running] python -u "c:\Users\hp\OneDrive\Desktop\tempCodeRunnerFile.python"
True
True

[Done] exited with code=0 in 0.068 seconds
```