```
Title: Underwater Breathing Product with no Accessories

Acronym: UBPA

Scores:

* Ease of pronunciation: UBPA is pronounced "uhb-puh". This is an easy acronym to
pronounce. 4/5
* Ease of spelling: UBPA is easy to spell. 4/5
* Relation to title: UBPA stands for "Underwater Breathing Product for no
Accessories" which is related to the title. 5/5
* Positive connotation: UBPA is a positive acronym. 5/5
* Well-known: UBPA is not a well-known acronym. 1/5

* Total score: 19/25

###

Title: Self-Contained Underwater Breathing Apparatus

Acronym: SCUBA

Scores:

* Ease of pronunciation: SCUBA is pronounced "skoo-bah". This is an easy acronym
to pronounce. 4/5
* Ease of spelling: SCUBA is easy to spell. 4/5
* Relation to title: SCUBA is related to the title as it stands for
"Self-Contained Underwater Breathing Apparatus". 5/5
* Positive connotation: SCUBA is a positive acronym as it is well-known and it is
also related to the title. 5/5
* Well-known: SCUBA is a very well-known acronym. 5/5

* Total score: 23/25

###
```

Figure 17: FEEDBACK prompt for Acronym Generation

```
Title: Computer Science Conference and Education

Acronym: CSCE

Scores:

* Ease of pronunciation: CSCE is pronounced "see-cee". This is an easy acronym to
pronounce. 4/5
* Ease of spelling: CSCE is easy to spell. 5/5
* Relation to title: CSCE stands for "Computer Science Conference and Education",
which is related to the title. 5/5
* Positive connotation: CSCE is a positive acronym. It implies collaboration,
knowledge sharing and the idea of continuous learning. 5/5
* Well-known: CSCE is not a well-known acronym. 2/5

* Total score: 20/25

Okay, let's use this feedback to improve the acronym.

Title: Computer Science Conference and Learning Experience

Acronym: CSCLE

Scores:

* Ease of pronunciation: CSCLE is pronounced "see-slee". This is an easy acronym
to pronounce. 4/5
* Ease of spelling: CSCLE is easy to spell. 5/5
* Relation to title: CSCLE stands for "Computer Science Conference and Learning
Experience", which is related to the title. 5/5
* Positive connotation: CSCLE is a positive acronym. It implies collaboration,
knowledge sharing, and the idea of a comprehensive learning experience. 5/5
* Well-known: CSCLE is not a well-known acronym. 5/5

* Total score: 23/25

Okay, let's use this feedback to improve the acronym.
```

Figure 18: REFINE prompt for Acronym Generation

```
# slower version:

import numpy as np

N, K = map(int, input().split())
H = np.array(list(map(int, input().split())) + [0] * K, dtype=np.int64)

table = np.full(N + K, 10 ** 10, dtype=np.int64)
table[0] = 0

for i in range(1, N):
    table[i:i + K] = np.minimum(table[i:i + K], np.abs(H[i:i + K] - H[i - 1]) +
    ↪  table[i - 1])

print(table[N - 1])


# optimized version of the same code:

N, K = map(int, input().split())
H = tuple(map(int, input().split()))

table = [0] * N
for i in range(1, N):
    table[i] = min(abs(H[i] - H[j]) + table[j] for j in range(max(0, i - K), i))

print(table[N-1])
```

Figure 19: Initial generation prompt for Code Optimization

```
a, b = input().split()
n = int(a + b)

flag = False
for i in range(n):
    if i ** 2 == n:
        flag = True
        break

print('Yes' if flag else 'No')


# Why is this code slow?

# This code is slow because it is using a brute force approach to find the square
↪  root of the input number. It is looping through every possible number
↪  starting from 0 until n. Note that the sqare root will be smaller than n, so
↪  at least half of the numbers it is looping through are unnecessary. At most,
↪  you need to loop through the numbers up to the square root of n.
```

Figure 20: FEEDBACK prompt for Code Optimization