Challenge 5: Nested Loop with Multiplication (Intermediate)

A more complex exercise based on the Big O of an algorithm which involves nested loops and the loop variables increment with multiplication.

We'll cover the following

- Problem Statement
  - Code Snippet

Problem Statement

Compute the Big O complexity of the code snippet given below. It is better to solve it on a piece of paper and then see if your answer matches with the correct option!

Code Snippet

```
n = 10  # can be anything, this is just an example
sum = 0
pie = 3.14
for var in range(1, n, 3):
    j = 1
    print(pie)
    while j < n:
        sum += 1
        j *= 3
print(sum)  # O(1)

```

Answer the following question and see if your result matches the correct answer!

Q Which of the following best describes the Big(O) of the program written above?

A) $O(n)$

B) $O(nlog_3n)$

C) $O(logn)$

D) $O(n^2)$

COMPLETED 0%

1 of 1

Now let's move forward to a more complex nested loop problem and see if you can solve it on your own.

Back

Solution Review: Nested Loop with M...

Next

Solution Review: Nested Loop with M...

Completed

Report an Issue

Ask a Question (https://discuss.educative.io/tag/challenge-5-nested-loop-with-multiplication-intermediate__introduction-to-complexity-measures__data-structures-for-coding-interviews-in-python)