



# Challenge 3: Big O of Nested Loop with Multiplication

Compute 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 time complexity of the following code the way we did in the previous lessons. It is better to solve it on a piece of paper and then see if your answer matches with the correct option!

## Code Snippet #

You have to calculate the time complexity of code given below:

```
1 n = 10 # Can be anything
2 sum = 0
3 pie = 3.14
4 var = 1
5 while var < n:
6     print(pie)
7     for j in range(var):
8         sum += 1
9     var *= 2
```



```
10 print(sum)
11
```



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



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

A)  $O(n \log n)$

B)  $O(n^2 \log n)$

C)  $O(n)$

D)  $O(n^2)$

Submit Answer

Reset Quiz ↻

Interviewing soon? We've partnered with Hired so that



companies apply to you instead of you applying to them.

[how](#) ⓘ



← Back

Next →

Solution Review: Big O of Nested Loo...

Solution Review: Big O of Nested Loo...

✓ Completed

⚠ Report an Issue

