If 1 item takes 1 second to process, 100 items take 1,267,650,600,228,229,401,496,703,205,376 (over 1 nonillion) seconds to process

$O(2^N)$

Code Example

This code creates a fibonacci sequence, and returns the value at the nth value of the sequence. The code that makes this a Power of 2 Complexity is line 4 of the fibonacci function - note the fibonacci is called twice.

```
1  function fibonacci(n) {
2    return n <= 1 ? 0
3         : n <= 2 ? 1
4         : fibonacci(n - 1) + fibonacci(n - 2);
5  }
6
```