Codility_

CodeCheck Report: trainingYMVJEJ-QA7

Test Name:

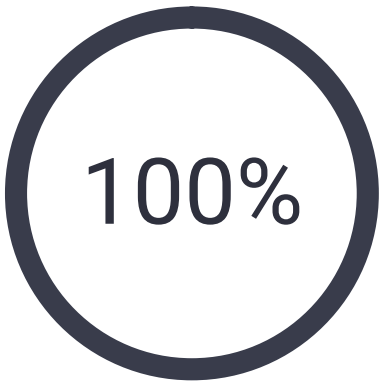
Check out Codility training tasks

Summary Timeline

Tasks summary

Task	Time spent	Score
ParityDegree Python	8 min	100%

Total score



Tasks Details

1. ParityDegree

Easy

Find the highest power of 2 that divides N.

Task Score	Correctness	Performance
100%	100%	Not assessed

Task description

A positive integer N is given. The goal is to find the highest power of 2 that divides N. In other words, we have to find the maximum K for which N modulo 2^K is 0.

For example, given integer N = 24 the answer is 3, because 2^3 = 8 is the highest power of 2 that divides N.

Write a function:

```
def solution(N)
```

that, given a positive integer N, returns the highest power of 2 that divides N.

For example, given integer N = 24, the function should return 3, as explained above.

Solution

Programming language used:	Python
Total time used:	8 minutes
Effective time used:	8 minutes
Notes:	*not defined yet*

Task timeline

Assume that:

- N is an integer within the range [1..1,000,000,000].

In your solution, focus on **correctness**. The performance of your solution will not be the focus of the assessment.

14:24:34 14:32:32

Code: 14:32:32 UTC, py, final, score: **100** show code in pop-up

```
1  # you can write to stdout for debugging
2  # print("this is a debug message")
3
4  def solution(N):
5      # Implement your solution here
6      highest_power = 0
7
8      # Divide N by 2 until it becomes od
9      while N % 2 == 0:
10         N = N // 2
11         highest_power += 1
12
13     return highest_power
```

Analysis summary

The solution obtained perfect score.

Analysis

expand all	**Example tests**	
▶	example example test	✔ OK
expand all	**Correctness tests**	
▶	extreme_small N = {1, 2}	✔ OK
▶	small_functional very small numbers	✔ OK
▶	small small numbers	✔ OK
▶	medium medium numbers	✔ OK
▶	medium_powers medium powers	✔ OK
▶	large big numbers	✔ OK
▶	large_powers large powers 2^27, 2^28, 2^29	✔ OK
▶	extreme_maximal N = 10^9	✔ OK