

4 kyu

## Twice linear

☆ 1128 🏆 146 📈 88% of 1,120 🕒 1,706 of 6,065 👤 g964

Python



Details

🔗 Solutions

🔗 Forks (9)

💬 Discourse (278)

Consider a sequence  $u$  where  $u$  is defined as follows:

1. The number  $u(0) = 1$  is the first one in  $u$ .
2. For each  $x$  in  $u$ , then  $y = 2 * x + 1$  and  $z = 3 * x + 1$  must be in  $u$  too.
3. There are no other numbers in  $u$ .

Ex:  $u = [1, 3, 4, 7, 9, 10, 13, 15, 19, 21, 22, 27, \dots]$

1 gives 3 and 4, then 3 gives 7 and 10, 4 gives 9 and 13, then 7 gives 15 and 22 and so on...

## Task:

Given parameter  $n$  the function `dbl_linear` (or `dblLinear...`) returns the element  $u(n)$  of the ordered (with  $<$ ) sequence  $u$  (so, there are no duplicates).

## Example:

`dbl_linear(10)` should return 22

## Note:

Focus attention on efficiency