1h 25m left

ALL

<u>(i)</u>

1

2

3

4

5

6

7

8

9

7. Ad Rotation

An e-commerce site has a series of advertisements to display. Links to the ads are stored in a data structure and they are displayed or not based on the value at a bit position in a number. The sequence of ads being displayed at this time can be represented as a binary value, where 1 means the ad is displayed and 0 means it is hidden. The ads should rotate, so on the next page load, ads that are displayed now are hidden and vice versa.

Given a base 10 integer representing the current display state of all ads, determine its binary representation. Starting from the position of its highest order 1 bit, negate that bit and all lower order bits from 0 to 1 or from 1 to 0. Return the base 10 representation of the result.

```
C++
                        Autocomplete Ready ()
     #include <bits/stdc++.h> ...
 9
     /*
10
11
      * Complete the 'changeAds' function below.
12
      * The function is expected to return an INTEGER.
13
      * The function accepts INTEGER base10 as parameter.
14
15
      */
16
17
     int changeAds(int base10) {
18
19
     }
20
21
     int main() ...
```