

UNCC ACM

Fibonacci (Easy)

Fibonacci (Hard)

Lab Assistant (Easy)

Lab Assistant (Hard)

Lab Assistant  
(Medium)Do The Pyramid Slide  
(Easy)Do The Pyramid Slide  
(Hard)Unique Remainders  
(Easy)Unique Remainders  
(Hard)

Wire Crossings (Easy)

Wire Crossings (Hard)

# Unique Remainders

## (Hard)

## Unique Remainders

**Hard ★★★★★★**

Find the smallest nonnegative integer  $X$  such that when  $X$  is divided by each positive integer less than or equal to  $N$ , the remainders are all unique.

i.e. when  $N = 3$ ,  $X = 5$  because the remainder when  $X$  is divided by 3 is 2, by 2 is 1, and by 1 is 0.

The output file should be a line-separated list of all numbers requested.

**Find  $X$  when  $N$  is 150,000.**

Contestant Name

Submission

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