

## Problem E. Elliptic Curve Problem

Input file:           standard input  
Output file:         standard output  
Time limit:          3 seconds  
Memory limit:       1024 megabytes

*This problem might be well-known in some countries, but how do other countries learn about such problems if nobody poses them?*

Let  $p$  be an odd prime. Compute the number of quadratic residues in  $[l, r]$ .

$x$  is a quadratic residue of  $p$  iff  $x^{(p-1)/2} \equiv 1 \pmod{p}$ .

### Input

In the first line,  $p, l, r$  ( $3 \leq p \leq 10^{11}, 1 \leq l \leq r < p$ ). It's guaranteed that  $p$  is an odd prime.

### Output

One integer — the answer.

### Examples

standard input	standard output
11 3 8	3
998244353 11451400 919810000	454174074
96311898227 25437319919 55129361817	14846091352