

Count Permutation

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 512 megabytes

Alice loves doing research on permutations. For a n -permutation $P = (p_1, p_2, \dots, p_n)$, she defines $w(P) = |S|$, where $S = \{p_i - p_{(i \bmod n)+1} \mid 1 \leq i \leq n\}$. For example, if $P = (2, 4, 5, 3, 1)$, then $S = \{2, -1, -2\}$, $w(P) = |S| = 3$.

Alice hopes S to be as simple as possible, so she wants to find all n -permutation P such that $w(P)$ is minimal (She defines these permutations as “good permutation”). However, the number of good permutations may be too large. As a result, she writes down three numbers m, s, t and wants you to find out the number of good permutations $P = (p_1, p_2, \dots, p_n)$ that $p_1 = s$ and $p_m = t$.

Input

One line that contains 4 integers n, m, s, t , ($3 \leq n \leq 10^{12}$, $2 \leq m \leq n$, $1 \leq s, t \leq n$, $s \neq t$).

Output

One line, an integer, denoting the answer.

Examples

standard input	standard output
3 2 1 3	1
4 3 1 3	2

Note

A n -permutation is an integer sequence whose length is n and each element of $\{1, 2, \dots, n\}$ appears exactly once.