Problem I. Nice Numbers

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

In positional base-d notation, an integer $K = (A_1 A_2 \dots A_m)_d$ (where $A_i \in [0, d)$ and $A_1 \neq 0$) is called *good* if and only if $A_1, \dots, A_m$ is a permutation of integers from 0 to $d - 1$.

A number K is *nice* if and only if there exists at least one $d \geq 2$ such that K is good in positional base-d notation.

Calculate the number of nice numbers in the interval $[L, R]$. As the answer may be very large, find it modulo 998 244 353.

Input

The first line of the input contains two integers L and R ($1 \leq L \leq R \leq 10^{5000}$).

Output

Print a single line with a single integer: the answer modulo 998 244 353.

Examples

standard input	standard output
5 20	3
123456 123456789	114480