Problem D. Infinity Triples

Input file:	*standard input*
Output file:	*standard output*
Time limit:	4 seconds
Memory limit:	256 mebibytes

Consider numbers in base b where all digits are equal to a with $1 \le a < b$. We call a triple (n, a, b) an *infinity triple* if infinitely many of those numbers are divisible by n.

For example, $(3, 9, 10)$ is an infinity triple because infinitely many of the numbers 9, 99, 999, ... are divisible by 3. The triple $(7, 9, 10)$ is also an infinity triple, but $(5, 9, 10)$ is not.

Given m, count the number of infinity triples with $1 \le n \le m$ and $1 \le a < b \le m$.

Input

The input contains one integer m ($2 \le m \le 10^5$).

Output

Output one integer, the number of infinity triples with $1 \le n \le m$ and $1 \le a < b \le m$.

Examples

standard input	*standard output*
2	1
3	6
42	25055

Note

In the first sample, $(1, 1, 2)$ is the only infinity triple.

In the second sample, the infinity triples are $(1, 1, 2)$, $(1, 1, 3)$, $(1, 2, 3)$, $(2, 1, 3)$, $(2, 2, 3)$, and $(3, 1, 2)$.