

F. Selection of Personnel

time limit per test: 0.5 seconds

memory limit per test: 64 megabytes

input: standard input

output: standard output

One company of IT City decided to create a group of innovative developments consisting from 5 to 7 people and hire new employees for it. After placing an advertisement the company received n resumes. Now the HR department has to evaluate each possible group composition and select one of them. Your task is to count the number of variants of group composition to evaluate.

Input

The only line of the input contains one integer n ($7 \leq n \leq 777$) — the number of potential employees that sent resumes.

Output

Output one integer — the number of different variants of group composition.

Examples

input
7
output
29