

This challenge is an adaptation from the NOI archive, from 2008

Task 2: Housing

For the Youth Olympic Games in Singapore, the administration is considering to house each team in several units with at least 5 people per unit. A team can have from 5 to 200 members, depending on the sport they do.

For example, if there are 16 team members, there are 6 ways to distribute the team members into units:

- (1) one unit with 16 team members;
- (2) two units with 5 and 11 team members, respectively;
- (3) two units with 6 and 10 team members, respectively;
- (4) two units with 7 and 9 team members, respectively;
- (5) two units with 8 team members each;
- (6) two units with 5 team members each plus a third unit with 6 team members.

This list might become quite lengthy for a large team size. In order to see how many choices to distribute the team members there are, the administration would like to have a computer program that computes for a number n the number $m(n)$ of possible ways to distribute the team members into the units allocated, with at least 5 people per unit. Note that equivalent distributions like $5 + 5 + 6$, $5 + 6 + 5$ and $6 + 5 + 5$ are counted only once. So $m(16) = 6$ (as seen above), $m(17) = 7$ namely 17 , $5 + 12$, $6 + 11$, $7 + 10$, $8 + 9$, $5 + 5 + 7$, $5 + 6 + 6$ and $m(20) = 13$.

The computer program should read the number n and compute $m(n)$.

Input format

The file contains just one number which is the number n as described above, where $5 \leq n \leq 100$. A sample file is the following.

Example

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Output format

The output file consists of a single integer that is the number $m(n)$ as specified above. As n is at most 100, one can estimate that $m(n)$ has at most 7 decimal digits. A sample file (for the input $n = 20$) is the following.

Example

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