

Tournament

Input File: tournament.txt

You are organizing a head to head meta-foosball competition. It has the format of a double round robin tournament, in which every entrant plays everyone else twice.

Since each match costs \$5 to set up, large tournaments could get costly. Let the total cost of all the rounds be C . You will charge the lowest whole-dollar amount to each entrant such that the total amount collected from the entrants is at least half of C . Your sponsor will then pay the rest of the set up costs.

Input:

An integer, n , the number of lines.

For the next n lines:

An integer, a possible number of competitors.

Output:

The amount, in dollars, the sponsor will pay for each number of competitors; one amount per line.

Sample Input:

```
3
5
10
100
```

Sample Output:

```
50
220
24700
```