

Hasil and his best friend Jayant were watching India v/s Pakistan T20 cricket match. India was the chasing side after losing the toss earlier that day.

Hasil being a cricket enthusiast asked Jayant how many ways can India win this match. Knowing about your coding skills Jayant asks you make a program for this purpose. Winning here means atleast acheving the target score.

The outcome of each ball can be one of the 4 possible cases.

- case 1: no run scored
- case 2: 1 run scored
- case 3: 4 run scored
- case 4: 6 run scored

no other outcome is possible for a ball.

First line contains integer T the number of test cases.
The next T lines contain two intger each M and N.
M=> number of balls remaining
N=> number of runs to score..

Output

A single line containing a single integer for each test case.

Constraints

$$0 \leq T \leq 10$$

$$1 \leq M \leq 15$$

$$N \geq 0$$

Example

Input:

3
5 0
5 1
5 3

Output:

1
15
60