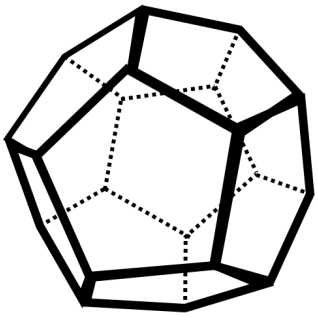
Problem M — limit 5 seconds

# Polyhedra



Given a sphere, you can slice through the surface of the sphere to make different convex polyhedra. All of these convex polyhedra have the Euler characteristic which can be defined as follows:

$$x = V - E + F = 2$$

where $V$ represents the number of vertices, $E$ the number of edges and $F$ the number of faces on a convex polyhedron.

## Input

Input begins with a line with a single integer $T$, $1 \leq T \leq 100$, denoting the number of test cases. Each test case consists of a single line with two space-separated integers $V$ and $E$ ($4 \leq V, E \leq 100$), representing the number of vertices and edges respectively of the convex polyhedron.

## Output

For each test case, print on a single line the number of faces in the defined polyhedron.

| **Sample Input** | **Sample Output** |
|---|---|
| 2<br>8 12<br>4 6 | 6<br>4 |