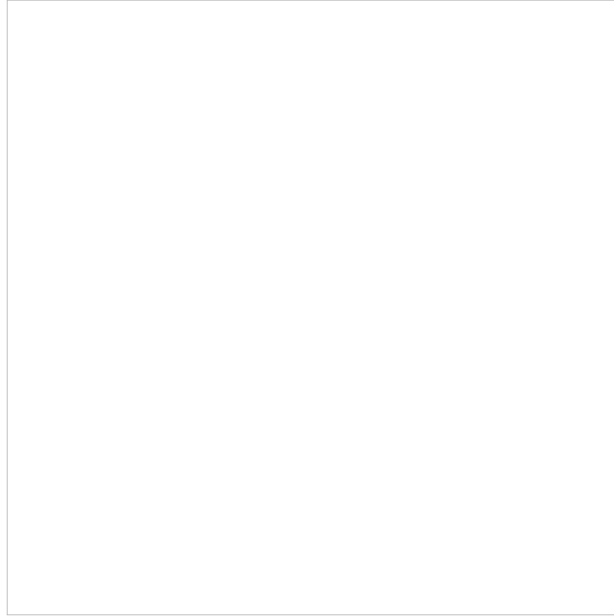# Circle Hazard-1

Given the radius R of a circle. You have to find the maximum area of a square which fits in this circle.

Input

Input starts with an integer **T (≤ 100)**, denoting the number of test cases.

Each case contains an integer R (1<=R<=100).

Output

For each case, print the case number and maximum area.

Sample Input	Output for Sample Input
2	Case 1: 2
1	Case 2: 18
3	

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