A scientist is trying hard to make a very large crystal, a large crystal of Carbon to be specific. He believes, as Diamond is a crystal of Carbon and very precious, so his new crystal of carbon would be as precious as Diamond in the long run. The atoms in his crystal will not hold together naturally, so he wants to put a strong force at the center of the crystal, which will attract all the carbon atoms and keep them together.

Figure1: Diamond - A beautiful and precious crystal of Carbon

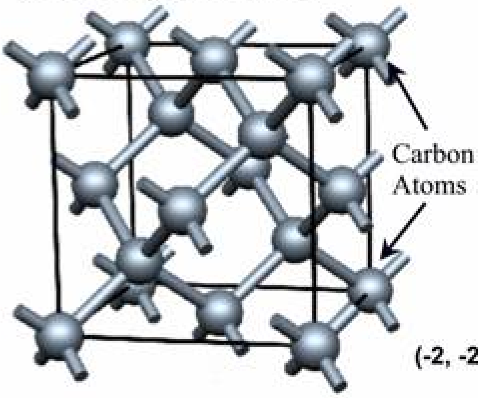

Figure 2: A Diamond Crystal Structure

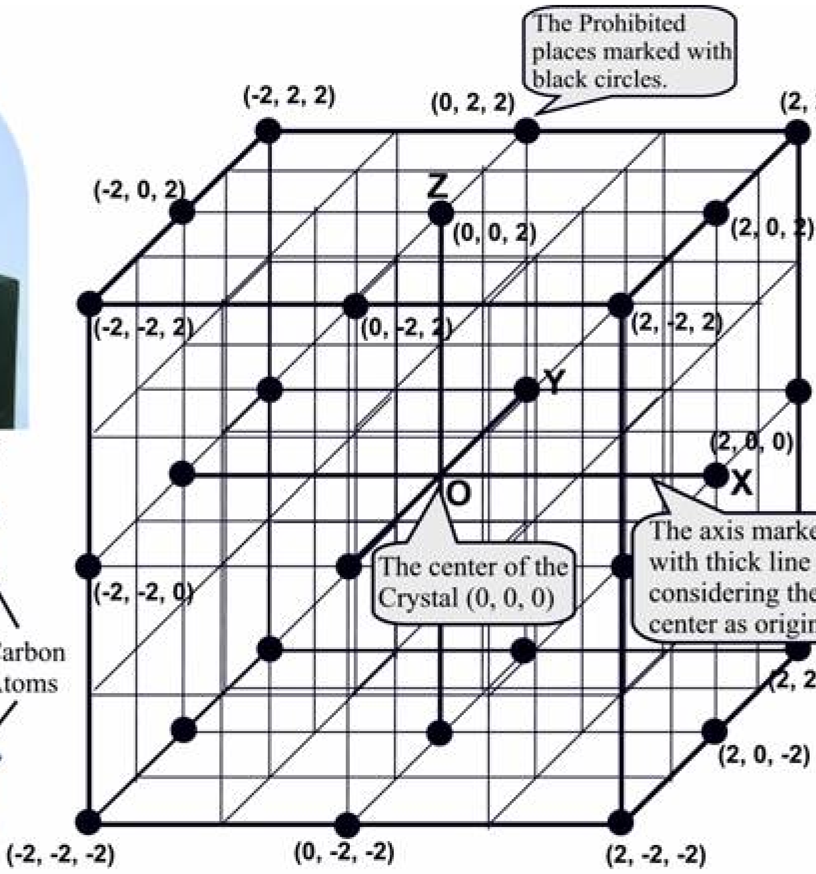

Figure 3: Skeleton of the proposed Crystal in (4x4x4) size. If we don't place atoms in the position of the black circles then there will be no crystal betwen the center and any of the atoms.

The Carbon atoms in a diamond crystal can be considered to be placed in a cube (Shown in **Figure 2**). The scientist also wants to place the carbon atoms of his crystal in an $(N \times N \times N)$ cube, where N is an even number. If the center of this cube is `(0,0,0)` and all the sides of this cube are parallel to xy, yz or xz plane then all the atoms will be placed in three-dimensional integer coordinates. So if (x, y, z) is the coordinate of an atom placed in an $(N \times N \times N)$ cube then x, y, and z are integers and $(-N/2 \leq x, y, z \leq N/2)$. As the strong force at the center will attract all the atoms so the atoms are placed in such a way so that no atom is between the center and another atom. For example if there is an atom at coordinate (2, 2, 2) then no atoms should be placed in coordinate (1, 1, 1) as then the atom at (1, 1, 1) will block the attractive force between (2, 2, 2) and the center. Similarly if there is an atom at place (1, 1, 1) then there should be no atom in location (2, 2, 2). Figure 3 shows such an arrangement for $(4 \times 4 \times 4)$ cube: if atoms are placed in all integer coordinates (the value of x, y and z are integers) except those marked with black circles, no atom will be between the center and another atom. Given the size of the cube (length of one side) in which atoms are to be placed to make the crystal, your job is to find out the maximum number of atoms that can be placed following the constraints mentioned above

Input

The input file contains at most 30 lines of inputs. Each line contains an even integer N $(0 < N \leq 200000)$, which indicates the length of one side of the cube in which the scientist plans to put his atoms. Input is terminated by a line where the value of N is zero.

Output

For each line of input except the last one produce one line of output. This line should contain the serial of output followed by an integer, which denotes the maximum number of atoms that can be placed.

Sample Input

```
4
2
0
```

Sample Output

```
Crystal 1: 98
Crystal 2: 26
```