Lamps

Lamps And Lighting, Inc. has started an effort to reduce the energy they consume at their lamp testing facility. Part of this process involves evaluating the current energy usage at their lamp testing facility, and they ask for your help in this. The testing facility consists of rooms filled with various numbers of lamps, and Lamps And Lighting, Inc. wants to know for each room how many lamps are actually on.

This sounds easy enough, until they inform you of their complex lamp testing procedure. Their testing procedure is as follows. Each room starts with N lamps in it. Initially all N lamps are on. Then every second lamp is turned off. Then every third lamp is toggled if it is off or turned on if it is on (call this toggling the lamp). Every fourth lamp is then toggled, and so on, up to and including the Nth lamp. Lamps And Lighting, Inc. wants you to tell them how many lamps are on at the end of this process.

Input

There will be several data sets. Each set consists of a single integer L indicating the number of lamps. The end of input is marked by a line containing the number 0.

Output

For each data set, print a single integer, indicating the number of lamps that are on. Print each integer on its own line. There should be no blank lines between outputs.