3182 Gambling

Gambling has always been very popular in China. Although it was prohibited for most of the time, people nevertheless played Mah Jong, Pai Gow, Fan-Tan, Sic Bo, and other games in secret. In the l930s, Shanghai was home to many illegal gambling dens, controlled by powerful gangs. Most of them were closed in l949 by the Communists, making Shanghai a safer place.

In this problem we consider a lesser-known game called Ah Ce Emm. In this game you receive a random amount of pebbles. Your goal is to lose all these pebbles, if you can, then you get a prize. You have several options for modifying the number of pebbles, but you have to pay a certain amount of money for each move:

- **The fire:** if you have at least 11 pebbles, then you can throw away exactly 11 pebbles by paying x_1.
- **The dragon:** if the number of your pebbles is divisible by 3, then you can throw away exactly one third of your pebbles by paying 1 for each pebble thrown away. Thus if you have 12 pebbles, then with this move you can reduce the number of pebbles to 8 by paying 4.
- **The eagle:** you can ask for exactly 7 new pebbles by paying x_2.
- **The courage:** you can double the number of your pebbles and get one additional pebble by paying 1 for each new pebble you get. Thus if you have 3 pebbles, then this move inereases the number of pebbles to 7, at the cost of 4.

The amounts x_1 and x_2 vary from game to game. You are not allowed to have more pebbles than initially: if a move would inerease the number of pebbles above the original number, then you cannot choose this move. Your task is to write a program that given the number of pebbles and the values x_1, x_2, determines the minimum cost of losing all the pebbles.

Input

Each line of the input contains 3 integers, and corresponds to a different test case. The first number $1 \leq n \leq 200000$ is the initial number of pebbles. The second and third numbers $1 \leq x_1, x_2 \leq 500000$ are the cost of the fire and the eagle.

The input is terminated by a line containing three zeros.

Output

For each test case you have to output an integer on a separate line, the minimum cost of losing all the pebbles. If there is no way of reducing the number of pebbles to zero, then write '`Impossible`' (without quotes).

Sample Input

```
33 122 200
1000 100 200
2 10 10
0 0 0
```

Sample Output

```
255
1953
Impossible
```