
Multiple of Previous Two

X23407_en

Write a program that reads a sequence of positive integers and reports the first one that is a multiple of both two previous numbers in the sequence, together with the corresponding quotients.

Input

A sequence of positive integers i_0, i_1, i_2, \dots finished by the value -1 that marks the end and does not count as a member of the sequence. There is no constraint (neither upper nor lower) on the length of the sequence.

Output

The first value i_n in the sequence that is a multiple of both previous ones (that is, i_n is a multiple of i_{n-1} and of i_{n-2}) together with the corresponding quotients (namely, i_n/i_{n-1} and i_n/i_{n-2}). In case no element of the sequence fulfills this condition, the output should be 0 (the integer zero).

Sample input 1

29 27 4 5 40 41 39 42 38 -1

Sample output 1

40 8 10

Sample input 2

666 -1

Sample output 2

0

Sample input 3

2 3 12 48 -1

Sample output 3

12 4 6

Sample input 4

15 8
2 6
6 7 42
13
-1

Sample output 4

6 1 3

Observation

The usage of “break” is hereby explicitly forbidden.

Problem information

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