The farmer Nikolai hired two lumberjacks: Dmitry and Fedor, to cut down the forest, in the place of which there should be a corn field. X trees grow in the forest.

Dmitry cuts down A trees a day, but every K-th day he rests and does not cut any trees. Thus, Dmitry rests on the K-th, $2K$-th, $3K$-th day, and so on.

Fedor cuts down B trees a day, but every M day he rests and does not cut down a single tree. Thus, Fedor rests on the M-th, $2M$-th, $3M$-th day, and so on.

Lumberjacks work in parallel and, thus, on days when none of them rest, they cut down $A+B$ trees, on days when only Fedor rests - A trees, and on days when only Dmitry rests - B trees. In the days when both lumberjacks rest, not a single tree is cut down.

Farmer Nikolai wants to understand how many days lumberjacks cut down all the trees and he can sow a corn field.

It is required to write a program that, given the integers A, K, B, M, and X, determines how many days all the trees in the forest will be cut down.

The input file contains five integers separated by spaces: A, K, B, M, and X ($1 \le A, B \le 10^9$, $2 \le K, M \le 10^{18}$, $1 \le X \le 10^{18}$).

The output file must contain a single integer - the desired number of days.

Sample input:
2 4 3 3 25

Sample output:
7