You have to process a files of commands. There are 2 types of commands, a read command and a reverse command. Both commands operate on a sequence of numbers, from 0 to n. The read command has the code 1 followed by an index. The command prints the number in the sequence with the given index.

The reverse command has the code 2 followed by two numbers. This command reverses the interval defined by those two numbers.

Example

After processing the following file:

17

1 133

2 1 10

17

1 133

15

257

17

The display will print the following sequence:

7

133

4

6

6

After implementing those 2 commands, try to invent and add new command types.