
Sequence of Numbers and Sum

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

Given multiple lines each line contains two numbers N and M .

For each line print a single line contains:

- The numbers between N and M inclusive separated by single space.
- The message “ sum =”.
- The **summation** of all numbers between N and M inclusive.

Note: The program should be *TERMINATED* as soon as any of these two numbers is less than or equal to zero and don't print any thing.

For more clarification see the examples below.

Input

The input contains multiple line.

Each line contains two numbers N and M ($-100 \leq N, M \leq 100$).

It's **guaranteed** that the last line of the input will contain a number that is less than or equal to zero.

Output

For each line print the answer according to the required above in a single line.

Examples

standard input	standard output
5 2 5 7 5 -1	2 3 4 5 sum =14 5 6 7 sum =18
5 2 6 3 5 0	2 3 4 5 sum =14 3 4 5 6 sum =18

Note

M may be **greater** than N and **Vice Versa**.