
Sum of Range

Input file: **standard input**
Output file: **standard output**
Time limit: 0.5 seconds
Memory limit: 256 megabytes

Given **2** numbers A and B . Print three lines that contain the following respectively:

- **summation** of **all** numbers between A and B (inclusive).
- **summation** of **even** numbers between A and B (inclusive).
- **summation** of **odd** numbers between A and B (inclusive).

Input

Only one line contains two numbers A and B ($1 \leq A, B \leq 10^9$).

Output

Print the answer required above.

Examples

standard input	standard output
4 6	15 10 5
7 1	28 12 16