

## 8113 Fear Factoring

The Slivians are afraid of factoring; it's just, well, difficult.

Really, they don't even care about the factors themselves, just how much they sum to.

We can define  $F(n)$  as the sum of all of the factors of  $n$ ; so  $F(6) = 12$  and  $F(12) = 28$ . Your task is, given two integers  $a$  and  $b$  with  $a \leq b$ , to calculate

$$S = \sum_{a \leq n \leq b} F(n).$$



### Input

The input file contains several test cases, each of them as described below.

The input consists of a single line containing space-separated integers  $a$  and  $b$  ( $1 \leq a \leq b \leq 10^{12}$ ;  $b-a \leq 10^6$ ).

### Output

For each test case, print  $S$  on a single line.

### Sample Input

```
101 101
28 28
1 10
987654456799 987654456799
963761198400 963761198400
5260013877 5260489265
```

### Sample Output

```
102
56
87
987654456800
5531765944320
4113430571304040
```