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| <b>Assignment Case</b>                          |  |
| COMP6047<br>Algorithm and Programming           |   |
| <b>Computer Science</b>                         | <b>&lt;Case Code&gt;</b>  |
| <i>Valid on Compact Semester Year 2019/2020</i> | <b>Revision 00</b>  |

**Soal***Case***Factor's Index**

Jojo is wondering whether an integer  $N$  is a factor of another integer  $M$ . He also wants to know the index of integer  $N$  in the  $M$ 's factors list sorted from the smallest value.

**Format Input**

The input consists of several test cases. Each test case consists of two integers  $M$  and  $N$ , where  $N$  is the number you need to find the index from factors of  $M$ . The input will be terminated by when both  $M$  and  $N$  value is zero.

**Format Output**

For each test case, the output will start with a line "Case #X:" where  $X$  is the number of test case. Following this line, print all the factors of  $M$  in ascending order. After that, print the index of  $N$  in factors list of  $M$  in the next line. If  $N$  is not a factor of  $M$ , print "-1" for  $Y$  instead.

**Constraints**

$$1 \leq M, N < 2^{31}$$

| Sample Input 1 | Sample Output 1   |
|----------------|---|
| 12 3<br>12 5   | Case #1:<br>1 2 3 4 6 12<br>2<br><br>Case #2:<br>1 2 3 4 6 12<br>-1 |

**Explanation:**

In the first case, the factors of 12 is {1, 2, 3, 4, 6, 12}. The integer 3 is positioned at index 2. Therefore, the answer for the index is 2.

For the second case, since 5 is not a factor of 12, print -1 for the index instead.