

Problem F

A friend of mine once told me that his phone number, 642-5616, is easy to remember because it is made up of only powers of 2: "64" + "256" + "16". This made me wonder how many numbers of various lengths had this property.

Given ints b and $digits$, write a method to compute how many integers of the given number of digits can be formed by concatenating various powers of the given base. Use only non-negative powers of the base (including b^0 , which equals 1).

For example, given $b = 12$, and $digits = 4$, there are 8 such numbers:

1111: "1" + "1" + "1" + "1"

1112: "1" + "1" + "12"

1121: "1" + "12" + "1"

1144: "1" + "144"

1211: "12" + "1" + "1"

1212: "12" + "12"

1441: "144" + "1"

1728: "1728"

- b will be between 2 and 999999999, inclusive.
- $digits$ will be between 1 and 18, inclusive.

See examples for input/output format.

F.IN

1

12

4

F.OUT

