Dyslexic taxi driver (2) P21156_en

You arranged a taxi pick up, so you provided your address, which includes your street number n. However, the taxi driver is a bit dyslexic, and he will swap exactly two digits of n. What are the minimum and the maximum possible distances (measured as the number differences) between your real address and the place where the taxi driver will show?

Input

Input consists of several cases, each one with an n, with between 2 and 10^5 digits.

Output

For every n, print the minimum and the maximum possible distances. Take into account that the taxi driver can place a zero as starting digit.

Sample input 1

```
37
99
902
2342
```

Sample output 1

```
36 36
0 0
18 810
0 1980
```

Problem information

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