2017 TICK TOCK

For generations, visitors to *Widget, Whatsit & Doodah* (est. 1862) have, by special request, been able to visit the company clock archive. On display are prototypes and blueprints, photographs and newspaper clippings, and working copies of every timekeeping *oojah* ever manufactured by that venerable firm.

Every oojah has an internal counter which records the number of seconds since the company was founded. When an oojah is audible it makes a *tick* when the sum of its counter's digits is even and a *tock* when that sum is odd.

There are logs (past and projected) indicating when oojahs have (and will be) audible. To comply with upcoming Health and Safety legislation the company needs to report the number of seconds where at least one oojah is audible, and in how many of these seconds ticks occur.

Each record contains a first and last counter value in a period when an audible second occurs.

For example:

- An oojah audible from 789 to 791 would have gone tick, tick, tock;
- If an additional oojah had been audible from 788 to 790 the company would report 4 audible seconds, 2 of them containing ticks.

SAMPLE INPUT

```
3
789 791
100000 100000
788 790
```

SAMPLE OUTPUT

```
5 2
```

The first line of input will consist of a single integer, n ($1 \leq n < 2^{16}$), indicating the number of audible time periods. Each of the next n lines will contain two integers, f_i and l_i ($1 \leq f_i \leq l_i < 2^{63}$), indicating the first and last counter values for the i^{th} recorded audible period. Periods do not appear in any specific order and may be duplicated.

You should output a single line containing the total number of seconds where at least one oojah is audible followed by the number of those seconds in which a tick occurs.