❧ TORRES ❧

The manager from the Blue Chicken soccer team wants to buy the famous player Torres from the Red Duck team. The manager is determined to acquire the player, but since the transfer fee is very high, paying too much might cause financial problems for the club.

The manager tries to analyze past records of transfers of famous players to determine a reasonable price. However, since past transfers happened under different circumstances, sometimes a successful purchase could be at a lower price than an unsuccessful one. For example:

- Bought at 30 000 — success
- Bought at 20 000 — failure
- Bought at 26 000 — failure
- Bought at 24 000 — success
- Bought at 28 000 — success
- Bought at 22 000 — failure
- Bought at 26 000 — success

The manager wants to find the lowest price from the records at which the purchase is guaranteed to succeed (meaning there is no equal or higher price that failed). For example, in the above case, the manager would choose 28 000.

Input

The first line contains an integer L, the number of transfer records ($1 \leqslant L \leqslant 200$). The next L lines each describe one record, consisting of an integer P ($0 \leqslant P \leqslant 10\,000\,000$), followed by a space, then either 1 or 0.

- 1 = success (purchase successful)
- 0 = failure (purchase unsuccessful)

Output

Output the price the manager should choose, according to the given condition.

Example

Input	Output
7 30000 1 20000 0 26000 0 24000 1 28000 1 22000 0 26000 1	28000