



Goal

During summer, the temperature rises and the vacationers rush naturally towards the beaches.

To reduce the risk of drowning, municipalities use lifeguards. Theoretically, each lifeguard can handle a maximum of 10 people at a time. However, they are sometimes overwhelmed and they are no longer able to guarantee the safety of bathers. So when the number of swimmers **is strictly greater** than 10 times the number of lifeguards, an audible warning sounds that encourages bathers to be more vigilant. This alert lasts as long as the lifeguards are overwhelmed.

To determine if there are too many people on the beach, a safety gate at the entrance of the beach scans all the entrances and exits of the bathers.

You must determine how much time per day the alert rings.

It is considered that the day starts with zero bather and **ends at 23:00**. You are guaranteed that there is a maximum of one entry or one exit per minute.

Data

Input

Row 1: an integer **N** between 1 and 1379 corresponding to the number of entries or exits of swimmers during a day.

Row 2: an integer between 1 and 50 corresponding to the number of lifeguards.

Rows 3 to **N** + 2: a string of characters **H** and a letter **P** separated by a space where **H** corresponds to the time of a passage through the gate in the format "hh:mm" and **P** corresponds to the direction of the passage, enter or exit (P can take the value "E" for Entering or "S" for an Exit as Exit is *Sortie* in French). These rows are sorted chronologically.

Output

An integer corresponding to the cumulative time during which the alarm rings, expressed in minutes.

You can download sample input and output data files to work locally by clicking on the link at the bottom of the French version of the question



Téléchargez des fichiers d'exemple ainsi qu'un modèle de code pour travailler localement.