Your totalitarian dystopian society suffers a shortage of food, so many rebels appear. Extend the code from your previous task with new functionality to solve this task.

Define a class **Rebel** which has a **name**, **age,**and**group**(**string**)**,**names are**unique -**there will never be 2 **Rebel**s/**Citizen**s or a **Rebel** and **Citizen** with the same name**.** Define an interface **IBuyer** which defines a method **BuyFood()**and an integer property**Food**. Implement the **IBuyer** interface in the **Citizen** and **Rebel** class, both **Rebel**s and **Citizen**s **start with 0 food**, when a **Rebel** buys food his **Food** increases by **5**, when a **Citizen** buys food his **Food** increases by **10**.

On the first line of the input you will receive an integer **N** - the number of people, on each of the next **N** lines you will receive information in one of the following formats "**<name> <age> <id> <birthdate>**" for a **Citizen** or "**<name> <age><group>**" for a **Rebel**. After the **N** lines, until the command "**End**" is received, you will receive names of people who bought food, each on a new line. Note that not all names may be valid, in case of an incorrect name - nothing should happen.

### Output

The **output** consists of only **one line** on which you should print the **total** amount of food purchased.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 2  Peter 25 8904041303 04/04/1989  Stan 27 WildMonkeys  Peter  George  Peter  End | 20 |
| 4  Stam 23 TheSwarm  Ton 44 7308185527 18/08/1973  George 31 Terrorists  Pen 27 881222212 22/12/1988  John  Geo rge  John  Joro  Stam  Pen  End | 15 |