Problem 1 – Kermen

The city of Kermen is very traditional and people there are living still in the socialist epoch, so they don't want to change. Stereotypes are all around.

An ordinary home in Kermen consists of fixed things depending on some conditions.

A young couple's home has two rooms, a TV, fridge and a laptop per person. Room's electricity cost is: 20.

A young couple with children has two rooms, a TV, fridge, laptop per each adult and toys for each child. Room's electricity cost is: 30.

An alone young person has a room and a laptop. Room's electricity cost is: 10.

An old couple has three rooms, a TV, fridge and stove. Room's electricity cost is: 15.

An alone old person has a room and only memories of the past life. Room's electricity cost is: 15.

Each laptop, TV, fridge or stove has certain **electricity cost**. Each room has fixed light's electricity cost. Each adult has either salary or pension depending if it's young or old. Each child consumes money for food and toys.

You will receive the whole population of Kermen from the standard input as homes information (consider there are no homeless people, because in the socialism everyone is equal). Consider each three input lines as a whole month, thus each person in Kermen receives either a salary or a pension.

Everytime you receive the command "**EVN**" you need to print the total consumption of electricity and food/toys cost in Kermen.

Everytime you receive the command "**EVN bill**" you need to take the money for the electricity and their children food and toys consumption from the homes' budget (the home's budget is the sum of all money of the people living there). If they are not able to pay their bill, they are forced to emigrate and no will no longer be part of in Kermen.

The input sequence **ends** when you receive the command "**Democracy**". Afterwards you need to print the whole population count (people and their children).

Register Home Commands

YoungCouple(salary1, salary2) TV(electricityCost) Fridge(electrictyCost) Laptop(electricityCost) – registers an young couple in Kermen with their home's inventory.

YoungCoupleWithChildren(salary1, salary2) TV(electricityCost) Fridge(electrictyCost) Laptop(electricityCost) Child(foodCost, toy1Cost, toy2Cost..., toy3NCost) – registers an young couple in Kermen with their home's inventory and arbitrary number of children with their food cost and arbitrary number of toys cost

AloneYoung(salary) Laptop(electricityCost) – registers and alone young person with its home's inventory.

OldCouple(pension1, pension2) TV(electricityCost) Fridge(electrictyCost) Stove(electricityCost) – registers an old couple in Kermen with their home's inventory

AloneOld(pension) GoodOldTimes() – registers an alone old person with its home.



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Input

- Each command will come on a new line
- The input ends when you receive the command "Democracy".
- The input will be no more than **500** lines

Output

- Printing total consumption must be in format "Total consumption: " + {consumption}
- Printing total population must be in format "Total population: %d"

Constraints

- Each cost, pension and salary will be valid 64 bit floating point number
- If "EVN bill" is third command pay salaries first
- If **home registration** is third command register the home first

Examples

| Input | | | | | Output |
|--|-----|---------|-------------|-----------|---------------------|
| YoungCouple(22, YoungCouple(22, YoungCouple(22, EVN bill Democracy | 24) | TV(1.5) | Fridge(1.2) | Laptop(1) | Total population: 4 |

Comment

GREEN LINE – Salaries are paid, because it's a third line.

RED LINE – Bills are paid. Third young couple cannot pay their bills, thus they are removed from the population (salary: 22+22=44; bills: 1.5+1.2+1+1 (laptop per each) +20+20 (rooms) = 44.7)

| Input | Output |
|---|--------------------------|
| YoungCouple(22, 25) TV(1.5) Fridge(1.2 Laptop(1) YoungCouple(22, 24) TV(1.5) Fridge(1.2 | Total consumption: 279.1 |
| Laptop(1) | Total population: 11 |
| YoungCouple(22, 22) TV(1.5) Fridge(1.2 Laptop(1) | 2) |
| YoungCoupleWithChildren(130, 130) TV(2 | • |
| Fridge(4) Laptop(4) Child(10, 5, 6, 7, | , 8) |
| Child(10, 5, 5) Child(10, 5) | |
| EVN | |
| EVN bill | |
| Democracy | |

