## Hands of Cards

You are given a sequence of people and for every person what cards he draws from the deck. The input will be separate lines in the format:

* {personName}: {PT, PT, PT,… PT}

Where **P (2, 3, 4, 5, 6, 7, 8, 9, 10, J, Q, K, A**) is the power of the card and **T (S, H, D, C)** is the type. The input ends when a **"JOKER"** is drawn. The name can contain any ASCII symbol except **':'**. The input will always be valid and in the format described, there is no need to check it.

A single person **cannot have more than one** card with the **same power and type**, if they draw such a card they **discard** it. The people are playing with **multiple decks**. Each card has a value that is calculated by the **power multiplied by the type**. Powers **2 to 10** have the same value and **J to A** are **11 to 14**. Types are mapped to multipliers the following way (**S -> 4, H-> 3, D -> 2, C -> 1**).

Finally print out the total value each player has in his hand in the format:

* {personName}: {value}

### Examples

|  |  |
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| **Input** | **Output** |
| Pesho: 2C, 4H, 9H, AS, QS  Slav: 3H, 10S, JC, KD, 5S, 10S  Peshoslav: QH, QC, QS, QD  Slav: 6H, 7S, KC, KD, 5S, 10C  Peshoslav: QH, QC, JS, JD, JC  Pesho: JD, JD, JD, JD, JD, JD  JOKER | Pesho: 167  Slav: 175  Peshoslav: 197 |