

[I] Shop or Drop

Do you have sufficient money for the items you intend to buy?

Write a program to help you determine whether you can buy everything or not. If your money is not enough, indicate the amount of the shortfall.

Input Format (input: **shop. i n**)

The first line of input is an integer indicating the number of data sets.

Each test case contains sequences of numbers -- the first of which indicating the amount of money you have followed by the prices of the items you would like to purchase.

Note: The number of item prices in each data set is unknown. The value -1 is used to indicate the end of the set.

Output Format (output: **standard output**)

If money is sufficient, display "shop!"; otherwise, display "drop" and the amount of the shortfall.

See sample output for formatting.

Sample Input

```
3
500.00 250.50 75.25 150.00 -1
1500.00 250.00 31.00 -1
2200.00 275.00 189.00 564.00 231.50 1050.00 990.00 -1
```

Sample Output

```
shop!
shop!
drop Php 1099.5 short
```