1.In many jurisdictions a small deposit is added to drink containers to encourage people to recycle them. In one particular jurisdiction, drink containers holding one liter or less have a $0.10 deposit, and drink containers holding more than one liter have a $0.25 deposit.

Write a program that reads the number of containers (less and more) of each size from the user. Your program should continue by computing and displaying the refund that will be received for returning those containers. Format the output so that it includes a dollar sign and always displays exactly two decimal places.

Sample Input

10

20

Sample Output

Your total refund will be $6.00.

```
num1= input()

num2= input()

n1= int(num1)*0.10

n2= int(num2)*0.25

n3= float(n1)+float(n2)

print("Your total refund will be $"+"{0:.2f}.".format(n3))
```

2.Write a program that reads a positive integer, n, from the user and then displays the sum of all of the integers from 1 to n. The sum of the first n positive integers can be computed using the formula:

sum = (n) (n + 1) / 2

Sample Input

10

Sample Output

The sum of the first 10 positive integers is 55.0

```
a=int(input())

print("The sum of the first",a,"positive integers is",a*(a+1)/2)
```

3.In this exercise you will create a program that reads a letter of the alphabet from the user. If the user enters a, e, i, o or u then your program should display a message indicating that the entered letter is a vowel. If the user enters y then your program should display a message indicating that sometimes y is a vowel, and sometimes y is a consonant. Otherwise your program should display a message indicating that the letter is a consonant.

Sample Input 1

i

Sample Output 1

It's a vowel.

Sample Input 2

y

Sample Output 2

Sometimes it's a vowel... Sometimes it's a consonant.

Sample Input3

c

Sample Output 3

It's a consonant.

```
d = input();
if(d=='a' or d=='e' or d=='i' or d=='o' or d=='u'):
    print("It's a vowel.")
elif(d=='y'):
    print("Sometimes it's a vowel... Sometimes it's a consonant.")
else:
    print("It's a consonant.")
```

4.The length of a month varies from 28 to 31 days. In this exercise you will create a program that reads the name of a month from the user as a string. Then your program should display the number of days in that month. Display "28 or 29 days" for February so that leap years are addressed.

Sample Input 1

February

Sample Output 1

February has 28 or 29 days in it.

Sample Input 2

March

Sample Output 2

March has 31 days in it.

Sample Input 3

April

Sample Output 3

April has 30 days in it.

```
month=str(input())
if month in "January March May July August October December":
    print(month,'has 31 days in it.')
```

```
elif(month=="February"):
    print(month,'has 28 or 29 days in it.')
else:
    print(month,'has 30 days in it.')
```

A Number is said to be Disarium number when the sum of its digit raised to the power of their respective positions becomes equal to the number itself. Write a program to print number is Disarium or not.

Input Format:

Single Integer Input from stdin.

Output Format:

Yes or No.

Example Input:

175

Output:

Yes

Explanation

1^1 + 7^2 +5^3 = 175

Example Input:

123

Output:

No

For example:

Input	Result
175	Yes
123	No

```
num=int(input())
rem=s=0
len=len(str(num))
n=num
while(num>0):
    rem=num%10;
    s+=int(rem**len);
    num=num//10;
    len-=1;
if (s==n):
    print("Yes")
```

```
else:
    print("No")
```

5.Write a program that reads integers from the user and stores them in a list. Use 0 as a sentinel value to mark the end of the input. Once all of the values have been read your program should display them (except for the 0) in reverse order, with one value appearing on each line.

Sample Input

33
11
22
55
44
0
Sample Output
55
44
33
22
11

```
l=list()
while True:
    a=int(input())
    if a!=0:
        l.append(a)
    else:
        l.sort()
        l.reverse()
        for i in l:
            print(i)
        break
```

6.Assuming that we have some email addresses in the "username@companyname.com" format, please write program to print the company name of a given email address. Both user names and company names are composed of letters only.

Input Format:

The first line of the input contains an email address.

Output Format:

Print the company name in single line.

Example:

Input:

john@google.com

Output:

Google

```
a=input()

b=a.index('@')

c=a.index('.')

print(a[b+1:c])
```

(or)

```
a=input()

l1=a.find("@")

l2=a.find(".")

o=a[l1+1:l2]

print(o)
```

7.An integer, n, is said to be perfect when the sum of all of the proper divisors of n is equal to n. For example, 28 is a perfect number because its proper divisors are 1, 2, 4, 7 and 14, and 1 + 2 + 4 + 7 + 14 = 28.

If the given number is a perfect number then your program will return True. Otherwise it will return False.

```
a=int(input())

c=0

for i in range(1,a):

    if a%i==0:

        c+=i

if c==a:

    print(True)

else:

    print(False)
```

8.Raju went to a supermarket to buy some product, he has purchased the products and about to pay the bill, where the items he purchased is been stored in a nested tuples in the following order ((item_name,item_cost,no_of_item)), consider raju has purchased 5 items, calculate the total cost for the items he purchased.

sample input:

bread

45

5

milk

40

2

cheese

60

2

butter

90

2

jam

60

2

sample output: 725

```
t=[[input() for j in range(3)] for i in range(5)]

sum=0

for i in range(5):

    sum += int(t[i][1])*int(t[i][2])

print(sum)
```