Load Balancing

JGG , is a good network administrator and he wants to optimize the network performance . He has hired two links , but as he wants to implement their own algorithms , he need to develop an algorithm that divides the packet numbers, considering their weight. The packages are going to be send in equivalent way. Packages can not be divided.

For example , if JGG has the following packages (0, 1, 1, 0, 0, 0, 1, 1) , JGG knows that packages to be send by the link one are ( 1 and 7) , while the packages ( 2 and 6) are going to be send by the link two.

If JGG has (0, 0, 0, 0, 0, 0, 0, 0), he doesn’t send any package; but if he has (1, 0, 0, 0, 0, 0, 0, 0), he has one package with no weight, and it will be send through the link one.

Remember, JGG can have diferent packages but his algorithm always will balance the load.

The input is read from a file

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Test one:

Input:

1 1 1 1 1 1 1 1

Output:

7 send through link 1

6 send through link 1

1 send through link 1

0 send through link 2

2 send through link 2

3 send through link 2

4 send through link 2

5 send through link 2

Test two:

Input

0 0 1 0 0 1 0 0

Output

5 send through link 1

2 send through link 2

Test three

Input

1 0 0 0 0 0 0 0

output

0 send through link 1