

A. Arya and Bran

time limit per test

1 second

memory limit per test

256 megabytes

input

standard input

output

standard output

Bran and his older sister Arya are from the same house. Bran like candies so much, so Arya is going to give him some Candies.

At first, Arya and Bran have 0 Candies. There are n days, at the i -th day, Arya finds a_i candies in a box, that is given by the Many-Faced God. Every day she can give Bran **at most** 8 of her candies. If she don't give him the candies at the same day, they are saved for her and she can give them to him later.

Your task is to find the minimum number of days Arya needs to give Bran k candies **before** the end of the n -th day. Formally, you need to output the minimum day index to the end of which k candies will be given out (the days are indexed from 1 to n).

Print -1 if she can't give him k candies during n given days.

Input

The first line contains two integers n and k ($1 \leq n \leq 100$, $1 \leq k \leq 10000$).

The second line contains n integers $a_1, a_2, a_3, \dots, a_n$ ($1 \leq a_i \leq 100$).

Output

If it is impossible for Arya to give Bran k candies within n days, print -1.

Otherwise print a single integer — the minimum number of days Arya needs to give Bran k candies before the end of the n -th day.

Examples

input

Copy

2 3

1 2

output

Copy

2

input

Copy

3 17

10 10 10

output

Copy

3

input

Copy

1 9

10

output

Copy

-1

Note

In the first sample, Arya can give Bran 3 candies in 2 days.

In the second sample, Arya can give Bran 17 candies in 3 days, because she can give him at most 8 candies per day.

In the third sample, Arya can't give Bran 9 candies, because she can give him at most 8 candies per day and she must give him the candies within 1 day.