Q9. Crabs and Mountain Chickens (15 marks):

In a shared enclosure, there coexist unknown numbers of crab(s) (as depicted in Figure 9a) and mountain chicken(s) (as depicted in Figure 9b). Let's consider that the enclosure is inhabited with m crab(s) and n mountain chicken(s), and with these crab(s) and mountain chicken(s) there are a total of x eyes and y legs.



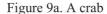




Figure 9b. A mountain chicken

Write a programme to

Input, in sequence

- (1) a positive integer x, which indicates the total number of eyes in the enclosure, where $1 \le x \le 300$;
- (2) a positive integer y, which indicates the total number of legs in the enclosure, where $1 \le y \le 1200$;

Output, in sequence

- (1) a non-negative integer m, which indicates the total number of crab(s) in the enclosure, where $0 \le m \le 150$;
- (2) a non-negative integer n, which indicates the total number of mountain chicken(s) in the enclosure, where $0 \le n \le 150$;

Note: if the numbers of crab(s) and mountain chicken(s) cannot be determined by the inputs, then output "**Invalid input**".

试题 9. 螃蟹与田鸡 (15 分):

在一个共享的围场中,有着数量未知的螃蟹(如图 9a 所示)和田鸡(如图 9b 所示)。假设该围场栖居了 m 只螃蟹和 n 只田鸡,同时这些螃蟹和田鸡总共有 x 只眼睛和 y 只脚。



图 9a. 螃蟹



图 9b. 田鸡

试写一程式以

依序输入

- (1) 一个正整数 x, 表示围场里所有眼的总数, 其中 $1 \le x \le 300$;
- (2) 一个正整数 y, 表示围场里所有脚的总数, 其中 $1 \le y \le 1200$;

依序输出

- (1) 一个非负整数 m,表示围场里螃蟹的数量,其中 $0 \le m \le 150$;
- (2) 一个非负整数 n, 表示围场里田鸡的数量, 其中 $0 \le n \le 150$;

请注意:如果根据输入无法判定螃蟹和田鸡的数量,则输出"Invalid input"。

Example (例子)

Input (输入)	Output (输出)
4 12	1 1
300 1200	150 0
60 230	Invalid input
212 556	33 73