

## Crap Streak

Computer Science Society  
Programming Contest  
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Craps is a dice game in which players place wagers on the outcome of a roll of a pair of dice. One kind of wager in craps is called a field bet, whose payout—the amount won or lost—is a multiple of the amount wagered. The following table shows the field bet payout on a \$1 wager, for each roll outcome:

outcome	payout (\$)
2	2
3	1
4	1
5	-1
6	-1
7	-1
8	-1
9	1
10	1
11	1
12	3

In this problem, we consider a string of rolls of a pair of dice (with \$1 wagers on each roll), and compute total payouts over various substrings. In a string of rolls, there might be some substrings that are winning streaks and some that are losing streaks. We seek to find the substring(s) that produce the highest total payout. . . the best winning streak(s).

### *Input Format*

Any input line containing two numbers between 1 and 6 separated by white space constitutes a *roll* of a pair of dice, whose *outcome* is the total of the two numbers. One or more rolls followed by an empty input line constitutes a *string of rolls*. We consider the rolls within a string of rolls to be indexed starting at 1. The input consists of one or more strings of rolls.

### *Output Format*

For each string of rolls in the input, compute the highest total payout over all substrings (of at least one roll), and give the starting and ending index of each such substring. Format the output as shown in the sample on the next page.

*Input Sample*

3 1  
4 2  
4 6

4 3  
2 5  
6 1

1 1  
1 2  
1 3  
1 4  
1 5  
1 6  
2 6  
3 6  
4 6  
5 6  
6 6

*Output Sample*

best winning streak is \$1 from rolls 1-1 1-3 3-3  
best winning streak is \$-1 from rolls 1-1 2-2 3-3  
best winning streak is \$6 from rolls 1-11 8-11