ACSL

2009 - 2010 **American Computer Science League** **Contest #1**

Senior Division
ACSL Golf

PROBLEM: In the sport of golf, scoring is based upon what a normal score should be for a particular hole on a course. That normal score called "par" is based upon the length of that hole measured from the tee, the start point, to the green, the end point. For the vast majority of golf courses and for this problem par values will be either 3, 4 or 5. Golf scores can be reported in three ways. The first way is to report the cumulative score. That is, the player scored a 68 after playing the standard 18 holes. The second way is to report the cumulative score in relation to par. If par for the course (the sum of the par values of all the holes) is 72, then the score reported as 68 would be 4 under par. A score of 75 would be 3 over par. The third way is by holes won. A player wins a hole when his score is lower than his opponents' scores.

The par value for the 9 holes of the ACSL golf course are: 3, 4, 5, 4, 4, 4, 5, 3, 4

INPUT: There will be 9 input lines. Each line will contain 4 positive integers. The integers will give the score for players A, B, C and D on those nine holes.

OUTPUT: There will be five outputs. Print the following:

1. The score in relation to par for player B.
2. The score in relation to par for player A.
3. The number of holes won by the player with the best cumulative score. A player wins a hole when his score is the lowest score for that hole.
4. List the players in order from the best score to the worst (the smallest number is the best score). There will be no ties.
5. The median of all the scores of all four players. The median is the middle score once all the scores have been sorted.

SAMPLE INPUT

1. 3,2,3,3
2. 4,5,5,6
3. 5,6,6,4
4. 4,3,4,4
5. 4,3,4,4
6. 4,4,5,4
7. 5,5,6,6
8. 3,3,3,4
9. 4,4,5,5

SAMPLE OUTPUT

1. 1 under par
2. par
3. 3
4. B, A, D, C
5. 4