

The Bidding Game



```
0-1-2-3-4-5-6-7-8-9-10
P1                P2
```

Two players are at the opposite end of the straight line as shown in the picture above. An expensive scotch (S) is kept in the middle at position #5. The players start the game with 100 dollars in hand.

The first player makes a secret bid followed by a secret bid by the second player. The bottle moves one position closer to the winning bidder. In the event of the same bid, the bottle moves closer to the player who has the draw advantage. Draw advantage initially starts with the first player, and it alternates every time a draw is encountered i.e., The first draw is won by the first player. The second draw if it occurs is won by the second player and so on.. The winning bid is deducted from the player's hand, the loser keeps his bid. Each bid must be greater than 0 dollar. In the case when there's no money left, the player has no choice but to bid 0 dollar. Only integral bids are allowed.

How is the result of the game determined?

The player who gets the bottle wins. If no one gets it, the game ends in a draw.

The function `calculate_bid` takes in 4 parameters - an integer player, the position of the scotch `pos`, an array `first_moves` that contains the previous bids made by player 1 and an array `second_moves` that contains the previous bids made by player 2. Complete the function to return an integer which is your next bid amount.

Let's consider an intermediate state in the game with the above 4 parameters

Sample input for Player 1:

```
1
6
10 8 10
5 20 30
```

Sample output for Player 1:

```
20
```

Sample input for Player 2:

```
2
6
10 8 10
5 20 30
```

Sample output for Player 2:

```
10
```

Resulting configuration

```
0-1-2-3-4-S-6-7-8-9-10
```

Explanation:

The current state of the bid is such that the scotch is at position #6 with player 1's bids being 10,8 and 10 and player 2's bids being 5,20 and 30. Clearly player 2 has won 2 of the 3 bids and the scotch is now at position 6.

Now, player 1 bids 20 dollars and player-2 bids 10 dollars. Player 1 wins the bid this time and the scotch moves one step closer and reaches position #5 again.

How does it work?

Complete the function `calculate_bid` to return an integer which is your bid value based on the current state. When placing a bid, both the players have the same information. The code is run alternately with your bot and the opponent bot