Fair shares

Q1, Who receives the collection? Solution) According to the method of sealed bids, Abraham will receive the collection as he is the highest bidder with an amount of $12000.

Q2, What is each person's fair share of the monetary value of the collection?

Soln. The formula for calculating the Fair Share of monetary value of the collection for each person is:

(Player's Bid)/ (No. of players)

Abraham: $12000/3= $4000

Bobby: $6000/3= $2000

Charlene: $9000/3= $3000

Q3, Why is the monetary amount of each fair share different?

Soln. The amount of each fair share is different as each bidder has put a different amount on the collection according to his or her valuation of the item.

Q4, How much money is owed to each of the two people who do not win the collection of frogs?

Soln. We calculate the amount that Abraham will have to pay to the society as the value that he put on the items is greater than his fair share.

12000-4000= $8000 from this amount we will subtract other two bidder's fair share amount.

8000-2000-3000= 3000 there is still a surplus of $3000 left which will be divided equally among the three bidders.

Now the total money owed to each of the two people who do not win: Fair Share+Surplus money

Bobby: 2000+1000= 3000

Charlene: 3000+1000= 4000

Q5, In your opinion how Fair is the process described above?

Soln. This process can be said to be a fair one as it gives each bidder an equal chance of winning the items that they want based on their own valuations of it. Now, if someone that tries to intentionally bid an amount that is far greater than the value of the collection to just beat the others than the winner also has to pay an amount which is the difference between the valuation he or she puts and the fair share of the item which compensates the other bidders and this way the other bidders also do not feel hard done by.

Q6, Now pretending for a moment that you like frogs; we will insert you into the situation under special circumstances. Despite (or perhaps because of) your love of all things amphibious, you currently lack the funds to pay each of the others their probable fair share. You will not receive the collection, but wish to receive as much money as possible. You have no knowledge of the amounts in each of the sealed bids, but strongly suspect that Abraham will bid between $10, 000. 00 and $12, 000. 00.

Given that you cannot afford to win the process, describe how you will go about deciding what to put down for your own estimate of the value of the collection.

Soln. As I know that I cannot pay the others their probable fair share and so I won't be able to win the collection and I also believe that Abraham will bid between $10000 to $12000 than I would think about putting a value that is just below the one that Abraham will put which in this case would be $9999. The reason for putting this value is that it will give me the highest possible

fair share without having a chance of winning the items as the fair share that

I will get if Abraham bids $10000 and wins it would be:

9999/4= $2499. 75

Now supposing that Bobby and Charlene bid the same amounts as before

their fair share would be :

Bobby: 6000/4= 1500Charlene: 9000/4= 2250

And Abraham's fair share is: 10000/4: 2500.

The amount that Abraham will pay to the society would be 10000-2500=

7500

Out of 7500, other bidder's fair share would be deducted: 7500-2499. 75-

1500-2500= $1000. 25

As $1000. 25 is surplus amount, it will be divided equally among the four

bidders:

1000. 25/4= $250. 0625 will be received by each bidder.

And so the total amount that I will receive would be 2499. 75+250.

0625=$2749. 8125. This is the highest amount that I can win considering

that I cannot win the collection and Abraham's bid will be between 10000 to

12000.