Worksheet 8 (Fair Division 3): The Method of Sealed Bids

1. Jamal, Maggie, and Kendra are dividing an estate consisting of a house, a cabin, and a boat. Their valuations (in thousands) are shown below. We will use the method of sealed bids to determine the final allocation.

   Their sealed bids are shown below. Determine the total allocation to each person (items and final cash distribution) by filling in the table.

	Jamal	**Maggie**	**Kendra**
house	$250	$280	$300
cabin	$170	$200	$255
boat	$60	$30	$45
total bid			
fair share			
who gets what (award)			
value of award			
award value − fair share			
pays in / receives			
total surplus			
share of surplus			
Final allocation			

Summary of Final Allocation

person	items	cash	paid or received?
Jamal			
Maggie			
Kendra			

2. (a) We want to answer the following: What happens when one person bids really high for everything and one person bids really low for everything?

Fill in following table.

	Jamal	**Maggie**	**Kendra**
house	$200	$75	$10
cabin	$200	$75	$10
boat	$200	$75	$10
total bid			
fair share			
who gets what (award)			
award value			
award value − fair share			
pays in / receives			
total surplus			
share of surplus			
Final allocation			

Summary of Final Allocation

person	items	cash	paid or received?
Jamal			
Maggie			
Kendra			

(b) Compare the outcomes for Maggie and Kendra? What do you observe?

3. (a) Fill in the following table.

	Jamal	Maggie	Kendra
house	$0	$100	$200
cabin	$300	$100	$50
boat	$0	$100	$50
total bid			
fair share			
who gets what (award)			
award value			
award value − fair share			
pays in / receives			
total surplus			
share of surplus			
Final allocation			

Summary of Final Allocation

person	items	cash	paid or received?
Jamal			
Maggie			
Kendra			

(b) Calculate the total value of the Final Allocation for each person and confirm that each received a fair share according to their values.