Quiz 15

1. Hangry thru-hikers Anuj, Becca, and Crash (he's from Cali it's not his fault) are sharing two high quality granolas - Kashi and Galaxy. Their values for the types of granola are on the left below. Anuj makes the cut on the right, which is a good cut for A to play Steinhaus' lone divider method.

	Kash	Gal
A	1/2	1/2
B	1/3	2/3
C	1	0

	S_1	S_2	S_3
Kash	1/3	1/6	1/2
Gal	1/3	1/2	1/6

With this cut above on the right, A, B, and C will play Steinhaus' lone divider method.

(a) Fill out the envy-table below for this example and the Bid lists. How does each player feel about each slice? Which pieces will each player include in their Bid list? (5 pts)

	S_1	S_2	S_3	Bid list
A	1/3	1/3	1/3	
B				
C				

(b) Is there an envy-free division which can result from Steinhaus' method in this example?
Circle One: Yes No (1 pt)

If yes, describe who gets which slice. If no, explain why. (1 pt)

(c) Describe a fair division which is NOT envy-free that results from Steinhaus' method in this example. (1 pt)

2. Circle T if the claim is true, F if the claim is false. (1 pt each)

(a) Every player considers at least one of the slices fair in Steinhaus' lone divider Method. T F

(b) Steinhaus' lone divider method is pareto-optimal. T F