Quiz 16

Three bros are moving off campus for their junior year and going separate ways. They have a large collection of unlabeled DVD's and with no recollection of the owner, they have chosen to divide the DVD's among the three of them using the Selfridge and Conway method.

Player A makes a cut with three slices that are equal in her eyes. Player B will be the trimmer. Suppose B and C have the following valuations for the three slices:

	S_1	S_2	S_3
B	1/9	2/3	2/9
C	1/2	1/4	1/4

1. **Round 1**

    (a) If B is the trimmer, which slice would B trim?   _____   (1 pt)

    For the rest of Round 1, put the trimmings aside. The slices are renamed to S^* in the following questions, even though only one of them is trimmed according to your answer above.

    (b) Circle ONE slice which C might choose: S_1^* S_2^* S_3^* (1 pt)

    (c) If C takes the slice you circled, which slice would B pick?   _____   (1 pt)

    (d) Which slice does A get?   _____   (1 pt)

    (e) At the end of Round 1, which players have their fair shares?
    Circle all that apply: (1 pt)

    A B C

2. **Round 2**

    (a) Which player divides the trimmings into equal sizes in their eyes? _____   (1 pt)

    (b) Which player chooses first? _____   (1 pt)

    (c) Which player chooses second? _____   (1 pt)

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

    (a) At the end of Round 1 in the Selfridge and Conway method, A always gets A's fair share.   T   F

    (b) BOTH of the other players (B and C) are NOT guaranteed to get their fair share at the end of Round 1 of the Selfridge and Conway method.   T   F