

Name: *Solutions*

Quiz 5

Suppose two people (D and C) are dividing a berry tart, using the "I cut, you choose" method. Below are the players' preferences, and the cut that D makes:

- D likes Mulberry, but likes Loganberry twice as much as Mulberry, and likes Huckleberry three times as much as Mulberry.
- C likes only Huckleberry.

	M	L	H
D	x	2x	3x
C	0	0	1

M	M	L
H	M	L
H	M	M
H	M	M

1. What fraction of the tart does C think the left piece is worth? *1*

2. What fraction of the tart does C think the right piece is worth? *0*

3. Which piece will C choose? *left*

4. What piece does D get, and what does D think this piece is worth? *right, 1/2*

5. Is the division above...  
 ...fair? (yes/no) *Yes*    ...envy-free? (yes/no) *Yes*    ...equitable? (yes/no) *No*

6. Consider the division below, with C getting the bottom and D getting the top. What does each player think their own piece is worth? Is this an objective improvement over the division above?

M	M	L
H	M	L
H	M	M
H	M	M

*D, 1/2*

*C, 2/3*

*No, not an obj. improvement since C does worse.*