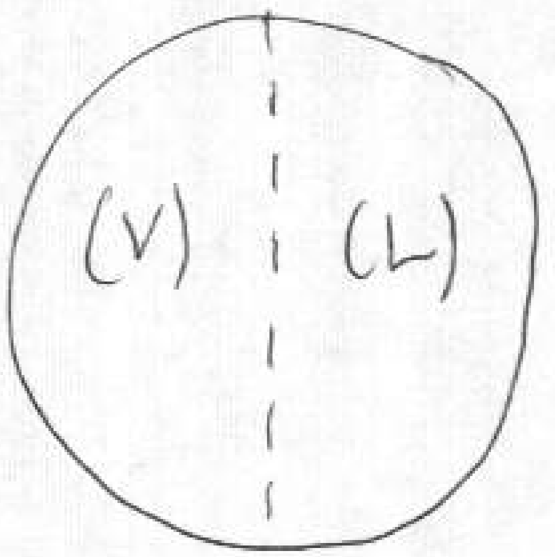
Another Lone-Chooser example:

We have a cake, half vanilla (V) and half lemon (L) with 3 players D_1, D_2, C dividing it.

They will apply the Lone-Chooser method where C is the chooser.



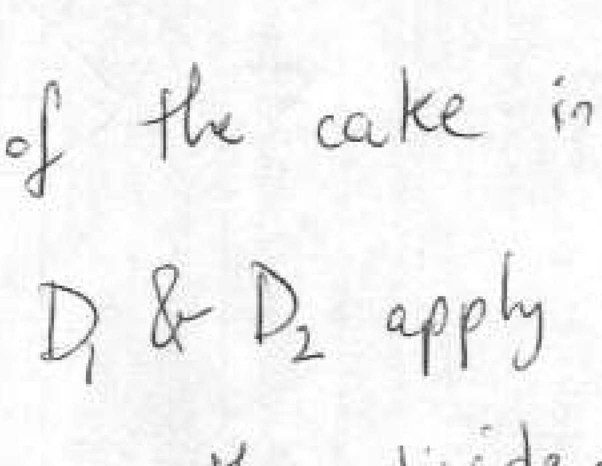
the cake

	(V)	(L)
D_1	\$6	\$6
D_2	\$8	\$4
C	\$12	\$0

The total value of the cake in dollars is \$12.

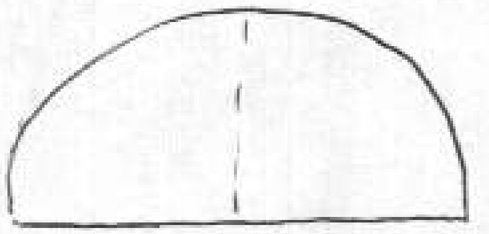
The first step: D_1 & D_2 apply divider-chooser method.

Let's suppose D_1 is the divider and makes the following simple cut:

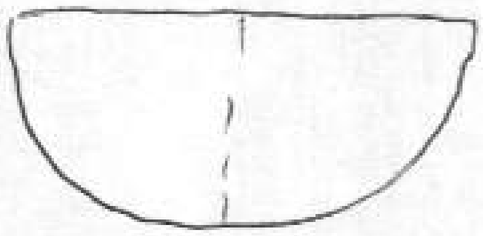


(2) D_2 sees no difference between S_1 and S_2 and takes S_2.

D_1 has S_1:

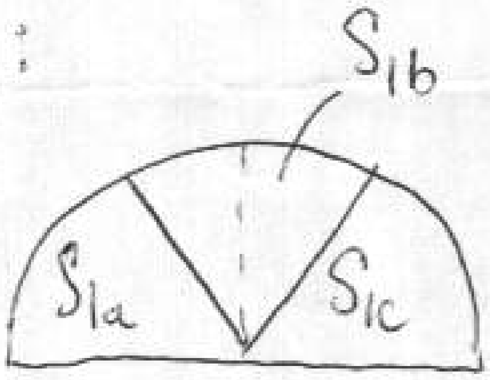


D_2 has S_2:

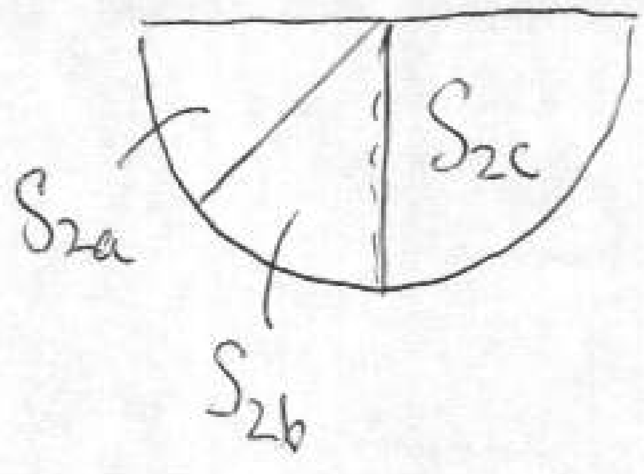


Now D_1 and D_2 each must divide what they have into 3 equal parts (in their opinions). Here's what might happen:

D_1:



D_2:



The validity of D_2's division is justified by:

$$\text{value of } S_{2a} \text{ to } D_2 = \frac{1}{4} \times \begin{pmatrix} \text{value of} \\ (V) \text{ to } D_2 \end{pmatrix} = \frac{1}{4} \times \$8 = \$2$$

and \$2 is exactly $\frac{1}{3}$ of the total value of S_2 which is worth $\frac{1}{2}$ the total \$12.

We can compute each player's value of each piece:

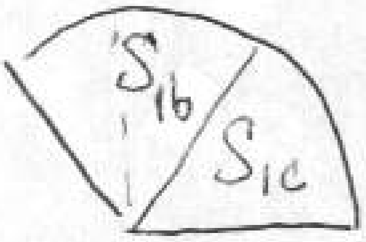
	S_{1a}	S_{1b}	S_{1c}	S_{2a}	S_{2b}	S_{2c}
D_1	\$2	\$2	\$2	\$1.50	\$1.50	\$3
D_2	\$2.67	\$2	\$1.33	\$2	\$2	\$2
C	\$4	\$2	\$0	\$3	\$3	\$0

(We don't need all of these.)

The last step is for C to choose one of S_{1a}, S_{1b}, S_{1c} and one of S_{2a}, S_{2b}, S_{2c}. From the table C should choose S_{1a} and either S_{2a} or S_{2b}.

(Suppose its S_{2a}.)

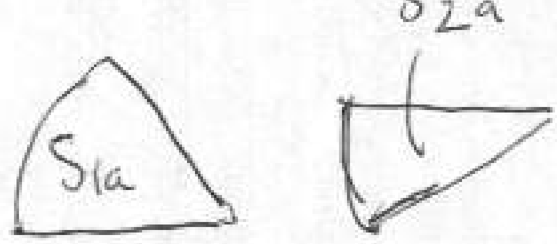
The result:

D_1: 

$= \$2 + \$2 = \$4$ (to D_1)

D_2: 

$= \$2 + \$2 = \$4$ (to D_2)

(4) C: 

$= \$4 + \$3 = \$7$ (to C)

Thus although D_1 and D_2 walk away with what they consider (minimally) fair ($\frac{1}{3}$ of $\$12$), C gains $\$3$ ($= \$7 - \$4$) of value!