

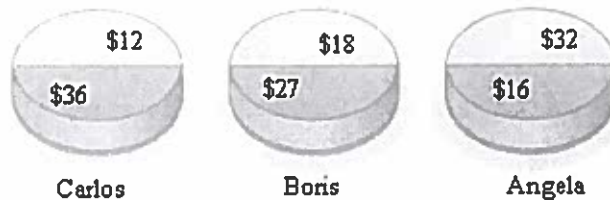
Key

Last Diminisher Method:

Preliminaries:

Rounds:

Angela, Boris, and Carlos are dividing the vanilla-strawberry cake using the last diminisher method. The figure below shows how each player values each half of the cake. Suppose that the order of play is Angela first, Boris second, and Carlos last. In round one, Angela claims the entire strawberry half of the cake. In round two, the first player to cut claims a vanilla only-zero strawberry share.



$$FS = \frac{48}{3} = \$16 \quad FS = \frac{45}{3} = \$15 \quad FS = \frac{48}{3} = \$16$$

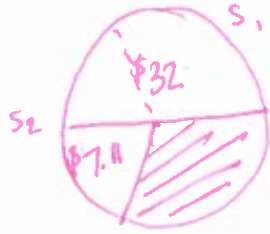


Last

$$\text{Carlos: } \frac{100}{180} = \frac{x}{36} \quad x = \$20.00$$

100° Str. worth \$20.00

② P<sub>1</sub> - Angela



$$\text{Total: } \frac{\$39.11}{2}$$

③

$$\frac{19.56}{32} = \frac{x}{180}$$

$$\text{FS: } \$19.56$$

$x = 110^\circ$  Vanilla S<sub>1</sub>  
or

70° V + 80° Straw S<sub>2</sub>

Banana (S<sub>1</sub>):  $\frac{110}{180} = \frac{x}{18} \quad x = \$11.00$

(S<sub>2</sub>)  $\frac{70}{180} = \frac{x}{18} \quad x_1 = \$7.00$



$\frac{80}{180} = \frac{x}{27} \quad x_2 = \$12.00$

} \$19.00

④ Carlos:  $\frac{20}{48} = 41.67\%$

Angela:  $\frac{19.56}{48} = 40.75\%$

Boris:  $\frac{19}{45} = 42.2\%$