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 onlyzero strawberry share.

(1) Angela: Strawberry $\$ 16$ Boris will diminish to $\$ 15$ shore.
(2) $P_{1}$ - Angela

$$
\longrightarrow \frac{15}{27}=\frac{x}{180} \quad \begin{gathered}
x=100^{\circ} \\
\text { Shin }
\end{gathered}
$$

strumbany.
(3) Angst-- $\frac{80}{100}$ Look at the nextopage for the correct answers to 3 and 4 ! "XXX XXXXXXXXXXXXXXXXXXXXXxxytum
(4) A XXXXXXXXXXXXXXXXXXXXXXX ${ }^{\text {Ben }} \mathrm{XXXXXXXXXX}$


Str.
Va.

1. Who was the last diminsher in round one?
2. Who is the first player to cut in round two?
3. Who was the last diminisher in round two?
4. Describe the value of each player's share (as a fraction of the total value of the cake) in the eyes of the player receiving it.

Last
Carso: $\frac{100}{180}=\frac{x}{36} \quad x=\$ 20.00$
$100^{\circ}$ Str. worth $\$ 20.00$
(2) $P_{1}$-Argeda


Total: $\frac{\$ 39.11}{2}$
(3)

$$
\begin{aligned}
& \frac{19.56}{32}= \frac{x}{180} \\
& x=110^{\circ} \mathrm{Vanille} \mathrm{~s}_{1} \\
& \text { or } \\
& 70^{\circ} \mathrm{V}+80^{\circ} \text { sthe } \mathrm{s}_{2}
\end{aligned}
$$

FS: $\$ 19.56$
(5)

Bons: $\frac{110}{180}=\frac{x}{18} \quad x=\$ 11.00$
(s)

$$
\begin{aligned}
\frac{70}{180} & =\frac{x}{18} \quad x=\$ 7.00 \\
& +
\end{aligned} \$ 19.00
$$

$$
\frac{80}{180}=\frac{x}{27} \quad x_{2}=\$ 12.00
$$

(4) $\operatorname{Corlos}: \frac{20}{48}=41.67 \%$

Angera' $\frac{19.56}{48}=40.75^{2}$
Bans: $\frac{19}{45}=42.2 \%$

