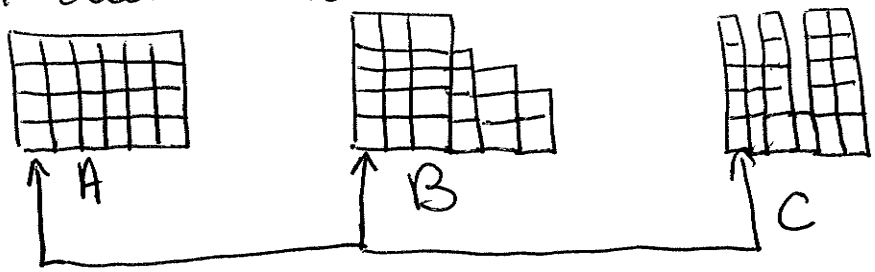
5(a) Remember: There is only one cake and only one person cuts. There are 3 different opinions about the cake.



How much they value the piece of cake.

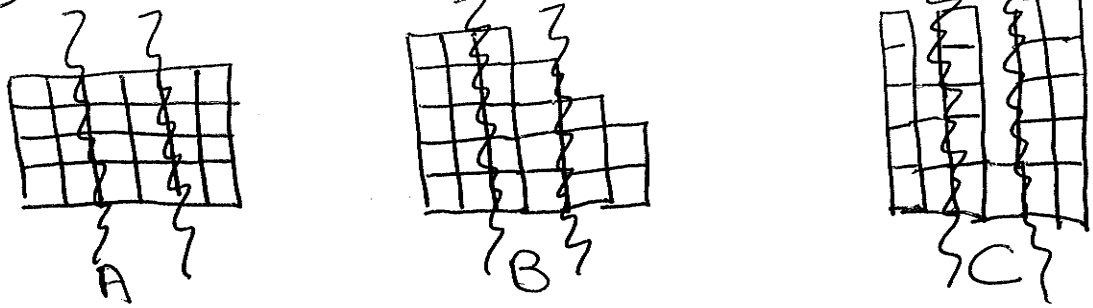
Same physical piece of the cake.

A values it at : 4 units
B " " " : 5 units
C " " " : 5 units

A cuts into 3 equal pieces.

Whole Cake: 24 units.

$\frac{1}{3}$ of Cake = $\frac{1}{3}$ of 24 = 8.



Agatha cuts.

Her view:

8 | 8 | 8

All 3 are acceptable to Agatha.

B's view of cake after Agatha cuts.

10 | 9 | 5

Fair Share, Fair Share, Too small "acceptable" "approves"

C's view of cake after Agatha cuts.

8 | 6 | 10

Fair, Too small, Fair

Each wants $(\frac{1}{3}$ of $24) = 8$ or more.

One possible Fair division

Give lefthand piece to C.

C thinks this is worth 8 — a Fair share/ approves/accepts.

Give middle piece to B.

B thinks this is worth 9 — happy with this.

A gets righthand piece — worth 8 (to A).

See handout on lone-divider or textbook to see how we reached this allocation.

B envies C.

In B's opinion:

B gets middle piece — worth 9.

C gets lefthand piece — worth 10.

B thinks C is getting more than B.