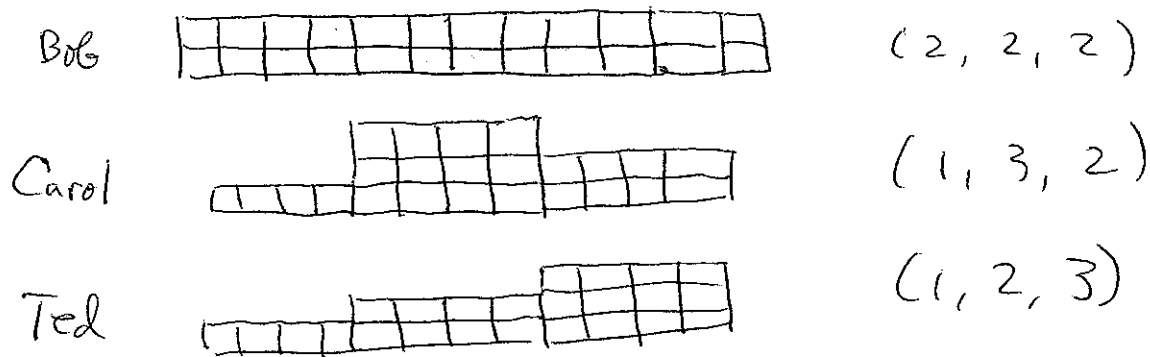


Remember that it's okay to work in groups, but the answers should be in your own words. Calculators may be helpful; versions of these problems on the exams won't need them. Use complete sentences, staples or paper clips. No late homework accepted.

0. From the textbook: p.499 – 21, p.364 – 7, 9. These are odd problems and the answers are in the back. For this reason, I will not grade these problems, but they are still part of what you're expected to do, and I will write out solutions for them.

Suppose Bob, Carol and Ted view a cake as having 24 units of value, with the values indicated below, and each makes a single vertical cut. We "divide-and-choose" three times.



1. If Bob cuts and Carol chooses, how will the cake be distributed?
2. If Carol cuts, and Ted chooses, how will the cake be distributed?
3. If Ted cuts, and Carol chooses, how will the cake be distributed?

4 & 5. p.364 – 8.

6 & 7. p. 365 – 10.

8 & 9. – This problem uses your number  $N$ . Find a 3 candidate election using  $N$  voters with the property that plurality voting, the Borda count and the Hare system lead to three different winners. You may want to start with the examples given in class, and change numbers enough so that they still work.