

Alex, Blair, Charlie, and Devin won the trivia night and came away with a fabulous prize: an all-you-can-eat dinner coupon. Hooray! Much happiness! Such joy! Except everyone felt they contributed equally and the prize cannot be split amongst 4 people.

The trivia team agrees to use Knaster's procedure to assign the prizes to people and use side-payments to make everyone feel they got their fair share. Everyone needs to write down how much they think their portion is worth.

Alex thinks their portion of dinner is worth \$3.50.

(a) What if (unthinkably) Alex were to LIE and say their portion of the dinner was worth \$100. What could go wrong?

(b) Well Alex learned their lesson! Now they say their portion of the dinner is worth is \$0. What could go wrong?

(c) What is the only number they can say their portion of the dinner is worth to be guaranteed they get at least \$3.50 from Knaster's procedure?