

Dear Ann Landers:

by Janice Ricks

Your recent column [on the right], in which **Faithful Reader in New York** wrote to request a solution to the age-old problem of how to amicably divide up an estate, prompted me to write this letter. Instead of suggesting that the family rely upon the advice of a lawyer, you should have recommended that they send for a mathematician!

Any student or teacher of discrete mathematics could tell you that not only is it possible to find an equitable way to divide an estate, but it is also possible for each person to end up with MORE than what they perceive to be their fair share. One way of doing this is called the Steinhaus Method [see box below].

So, Ann, the next time someone asks you "How can we divide this fairly?", you might suggest that they find a mathematician to provide them with a method for doing the job neatly. It will undoubtedly be far less costly than letting a lawyer handle it. Mathematicians have been researching many areas of interest to the general public and you owe it to your readers to keep them better informed.

-- Discrete Reader in Philadelphia

The Steinhaus Method. In this method, each person bids on the items in question according to his or her own assessment of its worth, knowing that the highest bidder on any item will be awarded that item at the bid price. For example, suppose that Amy, Bart, and Carl are heirs to an estate that includes a painting, a car, a NY Yankee season ticket, and \$5000 in cash. The following amounts are bid:

	Amy	Bart	Carl
painting	2000	5000	3000
car	4000	2000	3000
ticket	400	300	100

The total value of the estate to each person will be determined by the sum of that person's bids plus the \$5000 cash. A "fair share" for each person can easily be determined by taking the total value of the estate to that person and dividing by the number of people bidding.

total value	11,400	12,300	11,100
fair share	3,800	4,100	3,700

The highest bidder on each item is then awarded that item, and cash adjustments are made so that each person receives a fair share by his or her own assessment. Thus Amy receives the car and the ticket, which to her are worth \$4,400, and must return \$600 to the cash pool. Bart receives the painting, which to him is worth \$5,000, and must return \$900 to the cash pool. Carl receives none of the items, and must receive \$3,700 from the cash pool. Thus everyone has received what he or she feels is a fair share of the total. However, the cash pool now has a total of $\$5,000 + \$600 + \$900 - \$3,700 = \$2,800$ which is divided equally so that each of the three heirs actually receives $\$2,800/3$ more than what they consider to be their fair share.

There are, of course, a few basic assumptions that must be met in order for this method to work. However, so long as the parties agree to the method, everyone will come away satisfied.

Dear Ann Landers:

I am one of five children. Our mother passed away seven years ago and Dad has been living in the same home with a housekeeper. Dad is doing well, but soon he will be 92, and we have started to talk about what to do with the possessions that he and Mom accumulated over a lifetime.

My brothers and sisters all own their own homes, and all but one sister lives in this state. Most of us are well off financially.

The problem is, how do we divide the contents of Dad's house? My brother's wife has already asked for a painting she's always admired. My older sister has said on several occasions that she wants the wing chair, even though I also would like it. One of my sisters received jewelry from my mother before she died and the other two sisters did not. Needless to say, the list goes on and on, and what's worse, some of the better items have already started to appear in my siblings' homes.

How can we be fair about this? I think the wives and husbands of the siblings should not be involved or should get only token items. Should we number the valuable items and draw lots? Should we select according to age?

I hope you can come up with an amicable solution. I don't want the family to come apart over this.

-- Faithful Reader in New York

Dear New York:

Does your dad have a lawyer? I think he'd better step in and say, "Nothing goes out of this house as long as your father is alive."

After your father dies, the children (no spouses) should be permitted to select the items they want, with the eldest getting the first pick (one item only) and so on down the line. There's nothing like dividing an inheritance to bring out the worst (and best) in people.