Yay! Not only will your friendships survive, but you just made your own algorithm to solve the stable roommate problem (official name, really!).

The stable-roommate problem is the problem of finding a stable matching for an even-sized set. Algorithms that solve this problem at scale are used across industries, including:

• The National Residency Match Program, a system that assigns new doctors to hospitals around the country

• Helping large urban school districts assign students to schools

• Help incompatible kidney donor-recipient pairs (friends/family who are willing to donate, but aren't a match) find others in the same situation. Shapley and Roth were award the Nobel Prize in 2012 for applying the matchmaking principle to help transplant patients find donors. They took the number from less than 20 people each year in the U.S. received kidneys from living donors to roughly 5,500 transplants.