

## Two-Sided Markets Example (2019)

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The theory behind this example is related to one of the most cited research papers in mathematics (by David Gale and Lloyd Shapley) and resulted in a Nobel Memorial Prize in Economics for Shapley and Alvin Roth (Gale was dead by the time the prize was given). This circle of ideas is used for pairing medical school graduates with hospitals and for school choice.

4 men rank 4 women without ties

	1 st	2nd	3rd	4th
m1	w1	w2	w3	w4
m2	w2	w1	w4	w3
m3	w1	w4	w2	w3
m4	w2	w3	w4	w1

4 women rank 4 men without ties

	1st	2nd	3rd	4th
w1	m4	m3	m2	m1
w2	m4	m3	m1	m2
w3	m2	m1	m4	m3
w4	m4	m2	m3	m1

What are reasonable ways for the men and woman to be paired?

Here we are assuming people don't have the option of NOT being paired.