

## Stable Marriage Problem. (Preference.)

$$\text{Set } x = \{m_1, m_2, \dots, m_n\}$$

$$\text{Set } y = \{w_1, w_2, \dots, w_n\}$$

Men's preference.

	1st	2nd	3rd
Bob	Lea	Ann	Sue
Jim	Lea	Sue	Ann
Tom	Sue	Lea	Ann

Women's preference.

Ann	Jim	Tom	Bob
Lea	Tom	Bob	Jim
Sue	Jim	Tom	Bob

Ranking Matrix

	Ann	Lea	Sue
Bob	2, 3	1, 2	3, 3
Jim	3, 1	1, 3	2, 1
Tom	3, 2	2, 1	1, 2

$$\{(Bob, Ann), (Jim, Sue), (Tom, Lea)\}$$