**MAT 271E Probability and Statistics**

**HOMEWORK 1**

Define an engineering problem (an example of your own) in terms of a **joint probability mass function** of **discrete** variables **X** and **Y**. (Define an at least 6x6 table.)

Find the **marginal probability mass functions** and **conditional probability mass functions** of both X and Y for your own example.

Plot the **joint probability mass function**,**marginal probability mass functions** and **conditional probability mass functions**, separately.

*Hint: You can take Example 2.13 (M. Bayazıt, B. Oğuz, pg 32) or slides 34-39 of MAT271E\_PART 3.pdf as reference.*