

## MAT271E Probability & Statistics

### Homework 1

March 08, 2023

Due date: March 18, 2023

**Q1-** (problem 2.12 of “İstatistik ve Olasılık, D. A. Şaşmaz”) The table below shows that the number of sales done by 60 real estate brokers in a certain week,

Number of sales	0-2	2-4	4-6	6-8	8-10
Number of real estate brokers	16	25	13	4	2

- a) Show class mark, class boundaries, class mids and construct a **frequency distribution, relative frequency histogram, relative and cumulative frequency curves** for the data set using two intervals and five classes. Use any computer program or **EXCEL** in your calculations.
- b) Calculate mean, mode, median, and standard deviation for the distribution by using computer in your calculations. (if you use **coding method** , check the MATLAB program name:"frekord" given in the text book)
- c) Repeat your calculations for mean value, standard deviation , variance and skewness coefficient by using **hand** calculations. Compare your results with part b.

*(How to download MATLAB? From Start Menu, select Run, then write [\\yazilim.cc.itu.edu.tr](http://yazilim.cc.itu.edu.tr). Then type your user name and password to download the software. You must be on the university network to use it, because it's under license. )*