



United International University

School of science and Engineering

Mid-Term-Exam(Assignment-02), Spring 2024

Course Code: MATH 2205, Course Title: Probability and Statistics

All questions are compulsory.

1. Consider the following data that represent the times taken by some children and adults to complete a level on a computer game.

Children	Adults
18,18,19,21,23,24,26,32,34,35,36,37,40,40,43	23,25,27,28,28,30,34,37,40,41,42

- a) Draw a back to back stem leaf diagram.
- b) Compare the both data observations to describe the consistency.
- c) sketch the Box-Whisker plot for children and identify outlier if any.
- d) Investigate the skewness of the children and adults.
2. a) A researcher wants to find out if there is any relationship between the heights of the sons and the heights of the fathers. Fit a regression line for the following data set by using x as an independent variable.

Height of father(In inches): y	68	63	66	67	65	67
Height of son(In inches): x	70	66	65	69	68	67

- b) Describe the strength of relation by using correlation coefficients $r = -0.72$ and $r = 0.41$?