

## MAT 420 – Assignment 2

Complete any five of the following six:

1. 8.1 – 10
2. 8.1 – 12
3. 8.2 – 4
4. 8.2 – 14
5. 8.3 – 6
6. The numbers below represent heights (in feet) of 3-year old elm trees, where leaves represent decimal parts of each value, e.g. 5.1, 5.5, 5.8, etc.

Stems	Leaves
5	1, 5, 8
6	1, 2, 4, 7, 8, 9
7	0, 2, 3, 3, 4, 5, 7, 9
8	1, 1, 2, 3, 5, 6, 6, 7, 7, 9, 9
9	0, 1, 3, 4, 6, 8
10	0, 2, 2

- a. Using the chi-square goodness-of-fit test, determine whether the heights of 3-year old elm trees are normally distributed, at the  $\alpha = .05$  significance level. Use spreadsheet or R.
- b. Find the  $p$ -value. Use computer. Not table. Computer.