Activity Sheet 4

Reporter :

Speaker :

Section 2.3

1. Exercise 2.31: Prove that a sequence $d_1, d_2, \cdots, d_n$ is graphical if and only if the sequence $n - d_1 - 1, n - d_2 - 1, \cdots, n - d_n - 1$ is graphical (after the suitable reordering).

2. Exercise 2.34:

   a. Determine for which integers x, if any, the sequence $7, 6, 5, 4, 3, 2, 1, x$ is graphical. You may need to reposition x to make sure the sequence is non-decreasing. Remember that you can also use the first theorem of graph theory to exclude some possible values without much work.

b. For each of the integers x described above, construct the corresponding graph by following the steps at the beginning of the proof of theorem 2.10.