Homework #15.

There will be a quiz on Monday.
Need to know for the quiz:
Statement and proof of thm 2.4.2, definition 2.4.3, statement of thm 2.4.6, definition 2.5.1.

- Read pp. 62 – 64.

Do the following problems:

1. Let $a_n = \frac{\sin(\frac{n\pi}{4})}{n}$, $n \in \mathbb{N}$.

a) Find a strictly increasing subsequence of (a_n).

b) Find a strictly decreasing subsequence of (a_n).

c) Find a subsequence of (a_n) that is constant.

d) Find a subsequence of (a_n) so that any two neighboring terms of this subsequence have opposite signs.

2. Do # 2.5.1, 2.5.2, 2.5.5.