

exercise 1:

Textbook problems:

A.3.1: f, g

A.3.3: b, c, d

exercise 2:

Textbook problem: B.3.3.

exercise 3:

Textbook problem: B.3.5.

exercise 4:

Textbook problems:

A.3.2: a, b, c

exercise 5:

Textbook problem:

A.3.2: g

Hint: Use that for all x in $\mathbb{R}$, $|\sin x - x| \leq \frac{x^2}{2}$.

exercise 6:

All remaining series in A.3.3.