Duke Math 431
Spring 2015

Typos in *Fundamental Ideas of Analysis*

- There are three places on pages 90-91 where $[x_i, x_{i-1}]$ should be replaced with $[x_{i-1}, x_i]$.

- In the proof of Theorem 3.3.3 on page 92, the reference to equation (14) should be replaced with a reference to equation (13).

- In the proof of Theorem 4.2.4 on page 131, the reference to equation (4) in "The sum (4) is a Riemann sum for $\int_a^b f'(x)dx$" should be replaced with a reference to equation (6).

- In the proof of Theorem 4.5.4 on page 149, in one place $[x_i, x_{i-1}]$ should be replaced with $[x_{i-1}, x_i]$, and in one place $[t_i, t_{i-1}]$ should be replaced with $[t_{i-1}, t_i]$.

- In the statement of Theorem 4.5.5, function f should be a continuous function defined on the finite interval $[\phi(a), \phi(b)]$ (not $[a, b]$).

- In Section 5.6 #9, the definition given for a limit point is incomplete. The definition should instead be the following: "A point $d \in M$ is called a **limit point** of a sequence $\{x_n\}$ if for every $\epsilon > 0$ and integer N, there is an $n \geq N$ so that $\rho(d, x_n) \leq \epsilon$." Compare the definition on page 56.

- In the statement of Theorem 6.1.1(b), the equation $a_n \leq \bar{s} + \epsilon$ should be replaced with $a_n \leq \underline{s} + \epsilon$.

- In Problem 6.1 #6, the case where (for example) $\limsup a_n = \infty$ and $\limsup b_n = -\infty$ needs to be ruled out in order for the righthand side $\limsup a_n + \limsup b_n$ to make sense.