Corrections to the book

A Readable Introduction to Real Mathematics

Chapter 1: Introduction to the Natural Numbers

p. 3: 100,000,559 is not prime; however 100,000,561 is prime.

Chapter 3: Modular Arithmetic

p. 23: We strongly overstate the difficulty of dealing with $3 + 2^{3,000,005}$. Present computers can display the digits of this number, and also divide it by 7, although both of these operations are somewhat difficult (especially dividing by 7). It is true, however, that common calculators, including common computer calculators, cannot deal with numbers this big.

Chapter 5: Fermat’s Theorem and Wilson’s Theorem

p. 38: Replace “The only composite numbers less than $m$ that cannot be written...” by “The only composite numbers $m$ that cannot be written...”

Chapter 7: The Euclidean Algorithm and Applications

p. 55: The precise statement of Theorem 7.2.10 states that all solutions are of the form $(-1001 + 16m, 572 − 9m)$ for an integer $m$, but this is of course equivalent to being of the form $(-1001 − 16m, 572 + 9m)$ for an integer $m$, as we state.

Chapter 12: Constructability

p. 151: The fifth Fermat number, i.e., when $n = 4$, is prime; the next one, when $n = 5$ is not prime.