

The Tools of Mathematical Reasoning by Tamara J. Lakins

Errata: Last updated 8/31/2022

- page 23, exercise 3(a): the statement should read:
Prove that for all $m, n \in \mathbb{Z}$, if m is even, then mn is even.
- page 60, exercise 15: the statement “Prove that” should read “Prove that for all $n \in \mathbb{Z}^+$ ”.
- page 133, line 17: $a - (b + 1)q$ should be $a - b(q + 1)$
- page 146, line -14: $r_1 \equiv r_1 \pmod{m}$ should be $r_1 \equiv r_2 \pmod{m}$
- page 181, line 5:

$$h(n) = \begin{cases} f\left(\frac{n}{2}\right) & \text{if } n \text{ is even,} \\ g\left(\frac{n+1}{2}\right) & \text{if } n \text{ is odd.} \end{cases}$$

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$$h(n) = \begin{cases} g\left(\frac{n}{2}\right) & \text{if } n \text{ is even,} \\ f\left(\frac{n+1}{2}\right) & \text{if } n \text{ is odd.} \end{cases}$$

- page 197, line -4: “Completeness Theorem” should be “Completeness Axiom”
- page 201, exercise 8: the set T should be $T = \{cx \mid x \in S\}$.