Corrections to

A Discrete Transition to Advanced Mathematics

Bettina Richmond and Thomas Richmond

Location: Incorrect passage	Corrected passage
Page ii, right column, lines 9–10: Wüerzburg (2 occurrences)	Würzburg
Page iv, line 11: and ' Chapter 8.	and Chapter 8.
Page 19, #5 (c): $0 \in B$.v	$0 \in B$.
Page 24, #9 (b), third line: {odd natural numbers}.	{odd natural numbers}}.
Page 63, line before 2.2.3 Theorem: $\blacksquare$ (proof-ending box is too far to the right)	$\blacksquare$
Page 112, 3rd line from bottom: e nding	ending
Page 158, last line, to Page 159, first lines: card. By the Fundamental Principle of Counting, there are	card, and we must divide by 2 to compensate for the order of these last two cards. Thus, there are
Page 159, line 2: $\binom{4}{3} \cdot \binom{48}{1} \cdot \binom{44}{1} = 4 \cdot 48 \cdot 44 = 8448$	$\binom{4}{3} \cdot \binom{48}{1} \cdot \binom{44}{1} \cdot \frac{1}{2} = 4 \cdot 48 \cdot 44 \cdot \frac{1}{2} = 4224$
Page 159, line 5: $= \dfrac{\binom{4}{3} \cdot \binom{48}{1} \cdot \binom{44}{1}}{\binom{52}{5}} = \frac{8448}{2{,}598{,}960} \approx 0.003251.$	$= \dfrac{\binom{4}{3} \cdot \binom{48}{1} \cdot \binom{44}{1}}{2\binom{52}{5}} = \frac{4224}{2{,}598{,}960} \approx 0.0016243.$
Page 159, lines 8–9: $13(8448) = 109{,}824$	$13(4224) = 54{,}912$

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(continued)

Location: Incorrect passage	Corrected passage
Page 159, line 11: $= \frac{13(8448)}{\binom{52}{5}} = \frac{109{,}824}{2{,}598{,}960} \approx 0.042257.$	$= \frac{13(4224)}{\binom{52}{5}} = \frac{54{,}912}{2{,}598{,}960} \approx 0.0211285.$
Page 159, line 19: approximately 4.2%	approximately 2.1%
Page 194, #1: **1.** Use the pigeonhole principle to show that the quasiorder of Example 5.4.3(c) is not a partial order.	**1.** Modify the quasiorder of Example 5.4.3(c) to $x \preceq y$ if and only if the number of U.S. states visited by x is less than or equal to the number of U.S. states visited by y. Use the pigeonhole principle to show that this quasiorder is not a partial order.
Page 195, #8(b): $(\mathbb{Z}/n)$	$(\mathbb{Z}/p)$
Page 279, #8: $0.\overline{1,234,567}.$	$0.\overline{1234567}.$
Page 205, #3: below are one-to-one, neither, or onto both.	below are one-to-one, onto, neither, or both.
Page 205, #4: below are one-to-one, neither, or onto both.	below are one-to-one, onto, neither, or both.
Page 321, line 20: geometric sequence $(b_n)_{n=0}^{\infty} = (5^n)_{n=0}^{\infty}$.	geometric sequence $(a_n)_{n=0}^{\infty} = (5^n)_{n=0}^{\infty}$.
Page 368, §9.4 # 3: $\sum_{k=1}^{n}$	$\sum_{k=0}^{n}$

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(continued)

Location: Incorrect passage	Corrected passage
Page 409, Section 1.4, #1 (g): A	H
Page 412, Section 4.1, #6 (b): 8	10