ERRATA FOR

"Proofs and Fundamentals: A First Course in Abstract Mathematics"
Ethan D. Bloch
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Below is an updated list of errata. The fault for all the errors in the book is my own, and I offer my sincere apologies for any inconvenience caused by the errors in the book.

This list was compiled with the generous assistance of: Joe Antao, Mark Halsey, Lauren Rose, George Vaughan, Oleg Yerokhin and Bard students Jordan Berkowitz, Emily Grumbling, Monica Elkinton, Supriya Munshaw, Dan Neville, Jurvis LaSalle, Georgi Smilyanov, Benjamin Rin, Emily Shapiro.

If you find any additional errors in the book, or any errors in this list of errors, I would very much appreciate it if you would let me know by email or regular mail at the following address:

Ethan D. Bloch
Bard College
Annandale-on-Hudson, NY 12504
bloch@bard.edu

Page	Line/Item	Text	Comment/Should be
19	l. -3	"$(P \rightarrow Q) \rightarrow (\neg Q \rightarrow \neg P)$"	Should be "$(\neg(P \rightarrow Q)) \rightarrow (P \vee Q)$"
29	Exercise 1.3.8 (5)	"give him a hug"	Should be "you should give him a hug"
34	l. 3	"Fact1.3.1"	Should be "Fact 1.3.1"
43	l. -3		Remove the quotation mark at the end of the line
47	l. -13		After the first sentence insert "For the sake of avoiding special cases, we will assume that the collection U, which is often not written explicitly but is implicitly assumed, always has something it it."

53	l. -6	"$(\forall x$ in $U)[(R(x) \to C(x)]$"	Should be "$(\forall x$ in $U)[R(x) \to C(x)]$"
53	l. -3	"$(\forall a$ in $V)[(N(a) \to B(a)]$"	Should be "$(\forall a$ in $V)[N(a) \to B(a)]$"
54	Exercise 1.5.11 (4)	"$\neg(\forall x$ in $W)[M(y)]$"	Should be "$\neg(\forall x$ in $W)[M(x)]$"
54	l. -3	"likes dirt and does not like dust"	Should be "likes dirt or does not like dust"
68	l. -15	"n^2 is even"	Should be "n^2 is odd"
68	l. -14	"$n^2 = 2j$"	Should be "$n^2 = 2j + 1$"
73	l. -14	"A important proof"	Should be "An important proof"
77	l. -7	"some"	Should be "for some"
74	Exercise 2.3.6		Should be "Let c be an integer such that $c \geq 2$, and that c is not a prime number. Show that there is an integer b such that $b \geq 2$, that $b|c$ and $b \leq \sqrt{c}$."
80	Exercise 2.4.7	"Let n be an odd integer"	Should be "Let n be an integer"
81	Exercise 2.4.11 (3)		Insert "If $x, y \geq 0$, then" at the start of the line
90	l. -1	"does affect its truth"	Should be "does not affect its truth"
94	l. 20	"does get in the way"	Should be "does not get in the way"
102	l. -8	"$10^2 - 4 \cdot 1 \cdot 3 \neq 0$"	Should be "$10^2 - 4 \cdot 1 \cdot 3 > 0$"
102	l. -6	"$10^2 - 4 \cdot 1 \cdot 3 \neq 0$"	Should be "$10^2 - 4 \cdot 1 \cdot 3 > 0$"
102	l. -7	"equations"	Should be "equation"
105	l. -6	"the have"	Should be "the need"
114	l. -2	"Then $b \in B$"	Should be "Then $a \in B$"

114	l. -1	"Then $a \in A$"	Should be "Then $b \in A$"
116	Exercise 3.2.1(3)	"$\{2, 3, \ldots, 11\}$"	Should be "$\{2, 3, 4, 5, \ldots, 11\}$"
127	Exercise 3.3.9	"that$(X - A) \cap B$"	Should be "that $(X - A) \cap B$"
131	l. -5	"(i)"	Should be "(ii)"
131	l. -3	"(i)"	Should be "(ii)"
132	Exercise 3.4.2 (6)	"$\bigcup_{k \in \mathbb{N}} E_k = \mathbb{N}$"	Should be "$\bigcup_{k \in \mathbb{N}} E_k = \mathbb{Z}$"
145	Exercise 4.1.8	"$\begin{cases} 1, & \text{if } x \in X \\ 0, & \text{if } x \in X - A. \end{cases}$"	Should be "$\begin{cases} 1, & \text{if } x \in A \\ 0, & \text{if } x \in X - A. \end{cases}$"
168	Exercise 4.4.13		Change "must be" to "is" in four places
174	l. -11	"$\mathcal{B}(A)B$"	Should be "$\mathcal{B}(A, B)$"
190	Exercise 5.2.6(1)	"Let $a, b, c \in \mathbb{Z}$, and let $n \in \mathbb{N}$."	Should be "Let $n \in \mathbb{N}$, and let $a, b, c \in \mathbb{Z}$."
190	Exercise 5.2.6(2)	"Let $a, b, c \in \mathbb{Z}$, and let $n \in \mathbb{N}$."	Should be "Let $n \in \mathbb{N}$, and let $a, b, c \in \mathbb{Z}$ be such that c is not a multiple of n."
190	Exercise 5.2.7	"Let $n \in \mathbb{N}$"	Should be "Let $n \in \mathbb{N}$ be such that $n > 1$"
201	Exercise 5.3.18		In the commutative diagram change "f" to "h"
234	l. -3	"know"	Should be "known"
235	Exercise 6.3.5		Delete "positive"
235	Exercise 6.3.11	"$\prod_{i=2}^{n} \left(1 - \dfrac{i}{i^2}\right)$"	Should be "$\prod_{i=2}^{n} \left(1 - \dfrac{1}{i^2}\right)$"
239	l. -16	"phyllo-taxis"	Should be "phyllotaxis"
255	l. -16	"cancels out"	Should be "cancel out"

261	l. 6	"lemma"	Should be "theorem"
267	l. -5	"$g\colon \mathbb{R} \to \mathbb{R}^+$"	Should be "$h\colon \mathbb{R} \to \mathbb{R}^+$"
334	l. 5	"$g, h \in \mathbb{N}$"	Should be "$q, h \in \mathbb{N}$"
379	Hint 1.2.2		Delete "(though a false one)"
394	Hint 6.4.10		This hint should be placed after the hint for 6.4.8