

Changes to *Fearless Symmetry*

- Page xxii: Abel is Norwegian, not Danish.
- Page 47, Theorem 5.2: $f(x)$ must be a non-constant polynomial.
- Page 92, line -5: The equation $g(ab) = g(b)g(b)$ should be $g(ab) = g(a)g(b)$.
- Page 108, line -10: The equation $(0, 1) + (2, 3) = (0, -1)$ should be $(0, 1) + (2, 3) = (-1, 0)$.
- Page 110, line -16: Change the sentence
Divide equation (1) through by z and set $X = x/z, Y = y/z$.
to
Divide equation (1) through by z^2 and set $X = x/z, Y = y/z$.
- Page 110, line -12: Change the sentence beginning
On page 54 in the subsection on **Z**-equations. . .
to
On page 54 in the subsection on varieties. . .
- Page 111: The displayed equation

$$y^2 = -t^3 + t.^5$$

would be clearer if typed as

$$y^2 = -t^3 + t. \quad ^5$$

The superscript ⁵ is a reference to the footnote at the bottom of the page, not an attempt to raise t to the fifth power.

- Page 134: Change the equations

$$2x + 3y + 4z = 12.$$

$$x + 0y + 2z = 6.$$

$$3x + 4y + 8z = 1.$$

to

$$2x + 3y + 4z = 13.$$

$$x + 0y + 2z = 7.$$

$$3x + 4y + 8z = 1.$$

- Page 144, footnote 2, line 1: “The point $P \dots$ ” should be “The point $R \dots$ ”.
- Page 155, line 9: “as long is” should be “as long as”.
- Page 170, exercise: The exercise
 Check that $R(\sigma)^3 = 1$, $R(\tau)^2 = 1$, and $R(\sigma)R(\tau) = R(\tau)R(\sigma^2)$.
 should read
 Check that $R(\sigma)^3 = I$, $R(\tau)^2 = I$, and $R(\sigma)R(\tau) = R(\tau)R(\sigma^2)$.
- Pages 183–4: The definition of norm given here is non-standard. On page 184, the equation “ $N(\alpha)N(\beta) = N(\alpha\beta)$ ” should be removed. A correct statement is: “The same prime numbers divide $N(\alpha)N(\beta)$ and $N(\alpha\beta)$.”
- Page 195, line 13: “block box” should be “black box”.
- Page 197, line –10: Change the sentences
 ...and the conjecture that “ $P = NP$.” As a matter of fact, there is a million-dollar prize (offered by the Clay Mathematics Institute) for the first proof of any of these three conjectures, as well as...
 to
 ...and the conjecture that “ $P \neq NP$.” As a matter of fact, there is a million-dollar prize (offered by the Clay Mathematics Institute) for the first resolution of any of these three conjectures, as well as...
- Page 208, penultimate paragraph, beginning “We can also view...”: Twice, the symbol “ $\#\mathbf{F}(E_q)$ ” should be “ $\#E(\mathbf{F}_q)$ ”.
- Page 208, footnote: Add the phrase “For the experts:” to the start of the footnote, so that it begins
⁶For the experts: This does not contradict the fact that...
- Page 218, line 15: The phrase
 ...if x is any integer at all...
 should be
 ...if x is any element of $(\mathbf{Z}/N\mathbf{Z})^\times \dots$
- Page 220, paragraph 3: Delete the sentence “This black box is labeled N .”
- Page 221, Theorem 19.5: Change the label “Stronger Version of the Reciprocity Law” to “Strong Version of the Reciprocity Law”.

- Page 241, paragraph 1: The sentence
That representation *is* the system S from this point of view.
should be
That representation *is* the system from this point of view.
- Page 246, Conjecture 22.2: Delete the words “the integers” from the statement of the conjecture, so that the conclusion reads
...weight 2 such that $a_\ell(E) = a_\ell(f)$ for all but finitely many primes ℓ .
- Page 255, paragraph 2: The sentence
Our general feeling is that, just as for FLT, there should be no nontrivial primitive solutions.
should be
Our general feeling is that, for most p , q , and r , there should be no nontrivial primitive solutions.
- Page 259, Theorem 23.1: Replace the text of this theorem so that it now reads:
THEOREM 23.1: Suppose x , y , and z are all non-zero integers with no common factor, and p is a prime larger than 211. Then it is impossible to have

$$x^4 + y^2 = z^p.$$