

Errata

C++ for Mathematicians

This is a list of errors found in *C++ for Mathematicians*, by Edward R. Scheinerman (CRC Press © 2006). If you find errors, please report them to me at `ers@jhu.edu`. Thank you.

- Page 4, line 13: “in which is all done” should read “in which all this is done”. [Patrick Sullivan]
- Page 12, middle of the page. The text reads: “If an `int` on your computer is b bytes long, then the minimum and maximum values an `int` may hold are -2^{b-1} and $2^{b-1} - 1$, respectively.” Either the word *bytes* should be replaced by *bits*, or (better) the exponent in the lower and upper bounds should be replaced by $8b - 1$. [Tomas Flam]
- Page 13, program 2.2: The `main()` program should include a `return 0;` statement at the end. [Matthew Tucker]
- Page 22, after line 15 of Program 2.6: Need a `return 0;` statement. [Matthew Tucker]
- Page 26, middle of page, “... matching `#endif` on line 24.” The line number should be 23. [Matthew Tucker]
- Page 55, line 14 of the program. In this comment `[0, 1]` should read `[a, b]`. [Matthew Tucker]
- Page 60, line 32 of Program 4.4: Adding `<< endl` would give better output. [Matthew Tucker]
- Page 76, second line after Program 5.4. The factorization of 36,750 is incorrect. It should be $2 \times 3 \times 5 \times 5 \times 5 \times 7 \times 7$. [Patrick Sullivan]
- Pages 85–86, Program 5.10. There should be a `delete[] primes;` just before the end. [Patrick Sullivan]
- Page 235–236, at the end of the four `max_of_three` code segments (including Program 12.1): The last `if` statement in all four cases should read `if (a<c) then return c;` and the following statement should be `return a;`. [Glen Granzow]
- Page 276, last line. There should be a close parenthesis immediately after `X`.
- Page 409, last paragraph of the fourth bullet. Replace `atan` with `atan2`. [Christopher Ramos]
In addition, `atan2(x, y)` gives the angle of the vector from the origin to the point (y, x) (and not (x, y) as stated in the book). Note that if $x, y > 0$ then `atan2(x, y)` gives the same result as `atan(x/y)`. [John Sadowsky]
- Page 411, first line of §C.6.2: There is a stray `M_PI` that should be deleted. [Matthew Tucker]
- Page 415, solution to Exercise 2.1: e should be 3. [Matthew Tucker]
- Page 425, solution to Exercise 5.1: The correct value for $\phi(100)$ is 40 (not 4). [Patrick Sullivan]
- Page 441, solution to Exercise 8.3: There should be a `#include <utility>` in order to use `make_pair`. [Patrick Sullivan]

The latest version of this document can be found online at this URL:

<http://www.ams.jhu.edu/~ers/cpp4m/typos/typos.pdf>

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