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 22, second table in Section 2.6: In the Description column (rows 2 and 3) the symbols for “and” and “or” are reversed. The notation in the second row should be $x \land y$ and the notation in the third row should be $x \lor y$. [Manuel Gil]

• 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 $<< \mbox{ endl}$ would give better output. [Matthew Tucker]

• Page 76, second line after Program 5.4. The factorization of 36,750 is incorrect. It should be $2 \times 3 \times 5 \times 5 \times 7 \times 7$. [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 292, last bullet before §14.2.2: The second line of the sample code reads
  `cout << z << endl;` but it should read `cout << snore << endl;`. [Julio Del-
  gado Vasquez]

• Page 314, code for the `parse()` method (top of page). The `parse()` method should
  contain an additional check inside the while loop. The problem is described here
  [http://objectmix.com/c/372649-getline-newlines.html](http://objectmix.com/c/372649-getline-newlines.html) which is related to
  Windows-style and Unix-style newlines, when saving a text file under Windows and
  reading it under Linux. One solution is to add, as a condition for the content of the
  while loop to be executed, the following line:

  ```
  if(!(tmp.size()>0)&&(tmp[0]=='\n'||(tmp[0]=='\r'))){ /* code */}
  ```

  [Nicolas Cordier]

• 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 `φ(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]

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