

Errata List for the book
“A Primer on Scientific Programming with Python
3rd edition
by H. P. Langtangen

Simple typos are not reported in the list below – only more serious errors that may lead to confusion.

1. Exercise 3.2, page 120: The sample call `s(3)` should be `sum_1_div_k(3)`.
2. Exercise 3.8, page 122: The points in the Midpoint rule are wrong, they should be $a - \frac{1}{2}h + ih$, so the rule reads $h \sum_{i=1}^n f(a - \frac{1}{2}h + ih)$.
3. Exercise 3.13, page 124: The text “case where 1, 3, 5, ...” should read “case where $n = 1, 3, 5, 10, 30, 100$.”
4. Exercise 4.23, page 184: Very large (and very small) values of the random numbers cause problems in some of the mathematical operations. Try out `A=1` and `B=2` as well as `A=1` and `B=100`. The exercise also asks to import three expressions from 4.21, but there are only two (this point is just dropped in a new version of the exercise).
5. Exercise 5.16, page 247: The sentence “Compute $n+1$ interpolation points taken from the curve $f(x) = |x|$ for $x \in [-2, 2]$: $x_k = -2 + 4k/n$ and $y_k = |x_k|$, $k = 0, 1, \dots, n$ ” does not make sense because `graph` takes a function `f` as argument and not the interpolation points (`xp`, `yp`). The sentence should be removed and the next should read “Call the `graph` function from Exercise 5.15 with $f(x) = |x|$, $x \in [-2, 2]$, for $n = 2, 4, 6, 10$.”
6. Page 306, file `rw_csv_numpy.py` has several errors. A working version can be downloaded from <http://hplgit.github.com/scipro-primer/src/files>.
7. Page 572, Equation (A.35): an equality sign is missing after the term $\tilde{f}(x)$.