Post-Mortem

Assignment 01

September 25, 2018

We normally publish the post-mortem for an assignment after it has been marked and released. **Note that design recipe components were not marked for assignment 1, as they were not required for this assignment.** Here is a list of common errors provided by the graders for assignment 1.

**Style and Spacing**

- Lines should be less than 80 characters long: excessively long lines should be broken up into multiple shorter lines.
- Some students did not use DrRacket’s auto-indenting features and had inconsistent indentation.
- Some students did not leave a blank line before and after function definitions.

**General**

- Some Racket functions, such as ‘+’ and ‘*’, can consume more than 2 arguments. (recommended but not a mistake)
- Many students used parameter names that were not meaningful (e.g., n, s, x) or used ambiguous/unclear names (e.g., fe, mt).
- Many students did not follow the naming conventions discussed in the style guide for constant and parameter names. In particular, names should contain a dash between each word, they should not use any capital letters (with the exception of special constants or proper nouns), and they should not use any underscores.

**Question 2**

- In part (a), some students did not give a direct translation of the fraction, and simply divided by the denominator of the given fraction e.g. (/ 1 3) instead of 1/3.
- In part (b), some students failed to define a constant for G: `(define G 6.674e-11), (define G (* 6.674 10e-11)) or (define G (* 6.674 (expt 10 -11))).`
- In parts (a), (b), (c) and (e) some students did not give a literal translation of the math function. e.g. `(* n n) instead of (sqr n), (expt 3 1/2) instead of (sqrt 3).`
- In all parts, some students switched the order of elements in the original mathematical functions, which was not a literal translation.
Question 3

- Many students did not define constants for the conversion ratios, or defined constants that they derived on paper.

- In all parts, many students did not multiply or divide by the correct conversion factors, and did not pass the correctness tests.
  Note that miles-to-km is equivalent as km-per-mile.

Question 4

- Many students did not define constants for the weights associated with each grade component.

- Many students had ambiguous parameter names. For example, midterm1 is ambiguous because it is not sure if midterm1 is referring to midterm1 grade or midterm1 weight.