

Post-Mortem

Assignment 01

February 5, 2020

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.

General

- **Some students named their functions differently from what was specified in the assignment. These students have lost all their correctness marks for these functions. The basic tests results did notify them that the required function has not been defined, so it is extremely important that you submit early and often and check your basic tests results to ensure that this does not happen again in the future.**
- Many students used parameter names that were not meaningful (e.g., `a`, `m`, `f`) or used ambiguous/unclear names (e.g., `fe`, `mt`).
- Some students used excessively long parameter names (e.g. `the-overall-assignments-grade` instead of something that is shorter and still meaningful, like `assignments-grade`). The style guide discourages the use of filler words such as `'a'`, `'an'` and `'the'`.
- 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, and they should not use any underscores.
- Some students named their constants ambiguously (e.g. `(define assign 0.2)` instead of a clear name like `(define assns-weight 0.2)`) which is discouraged as well.
- **Some students submitted code that did not run at all. Students are advised to make sure their code runs on either their local machine or the lab computers.**

Question 1

- Many students did not define constants for 0.3, 0.11, 0.59.
- Many students did not fix parameter names. Inappropriate names are considered as bugs as well. Please read the style guide for more details on DrRacket conventions.

Question 2

- In part (a), some student did `(* 1 ft)` instead of `ft`, which is a translation of `1*ft`.

- In part (b), some students swapped the order of multiplication/division in their translation (e.g. `(/ (* G m1 m2) (sqr r))` instead of `(* G (/ (* m1 m2) (sqr r)))`) which is not a literal translation.
- In part (b), many students used `(* r r)` instead of `(expt r 2)`.
- In part (b), some students failed to define a constant for G: `(define G 6.674e-11)`.
- In part (b), some students wrote a decimal equivalent in their definition of the constant G, which was not a direct translation.

Question 3

- Many students did not define constants for the weights associated with each grade component. It is extremely important to avoid "magic numbers" in your function body so that it is easier to change the numbers, if necessary.
- Many students also did not define constants for the participation marks and the final exam grade needed in part (b).
- In terms of correctness, this question was well done overall.

Style and Spacing

Note: Marks were **not** lost for style mistakes in A01. Students should keep these tips in mind so that they do not lose marks in future assignments.

- 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. You may use Ctrl-I or cmd-I for auto-indentation. Marks were not deducted for this.
- Many students did not have consistent spacing (marks were not deducted for this). Students are encouraged to review the design recipe's specifications for proper spacing.