

# Answer to Problem 5

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## 1 Code review of $\Gamma(x)$

### 1.1 Purpose

The purpose of this review is to check whether the quality of code in the module is degrading the quality of the system, i.e the Calculator app. Some standard guidelines have been followed to review the code.

### 1.2 Guidelines

For this code review, the Google developer guidelines which is available at <https://google.github.io/eng-practices/review/reviewer/looking-for.html> have been followed. The guidelines are as follows:

- Check whether the code components interact well with other code components.
- The code functionality satisfies the users
- Outputs from error messages are well written and articulated
- Naming conventions for functions, variables, classes are good and communicate well to the user
- The code has unit tests that are maintainable and not complex
- The code has well written comments that add value and are not too lengthy
- The code follows a style guide
- The code is not over engineered
- No unnecessary import statements have been used

### 1.3 Approach

Several approaches were followed when reviewing the code and they are as follows:

- The code was read through and it was identified whether the naming conventions were good and whether the comments were useful and did not exceed 100 characters per line. Effort was given to check whether any function was too large and whether it needed breaking down into smaller functions.
- The code was run using a debugger line by line. The return values and error messages were checked against the requirements.
- The test cases were run to check if all had passed. It was also checked whether the test cases had clearly understandable assertions.
- It was checked whether the code followed a consistent style.

## 1.4 Results of review

Attribute	Result
<b>Code component interaction:</b>	PASS
<b>Correct functionality:</b>	PASS
<b>Clear error messages:</b>	PASS
<b>Naming convention:</b>	PASS
<b>Unit tests:</b>	PASS
<b>Useful comments:</b>	PASS
<b>Style guide:</b>	PASS
<b>Code base not too complex:</b>	PASS
<b>No unnecessary imports:</b>	PASS

## 1.5 Conclusion

The code-base of this module had all the necessary quality attributes. My only suggestion would be if in some small places, the coding styles would not be neglected, for example for the spacing around curly braces.