**Introduction**

Definitions

*Function* – Takes one or more arguments and evaluates to a single number

*Operator* – A mathematical function that has two arguments and is written in infix notation

*Operand* – A numerical argument to a function or operator

*Expression* – A syntactically correct string of numbers, operators, or functions

*Evaluation* – The result of calculating an expression

Purpose

The purpose of this document is to specify the requirements of the client-requested calculator. This document tries to state all necessary user and system requirements and will act as a guideline for system developers.

**Calculating Expressions**

Operators

All conventional operations are supported along with the modulus operator as well. Below is a table that specifies each operation's related symbol and precedence. For precedence, 1 is the “highest”, and 3 is the “lowest”. All operators are left-associative.

|  |  |  |
| --- | --- | --- |
| Operator | Symbol | Precedence |
| Exponentiate | ^ | 1 |
| Multiply | \* | 2 |
| Divide | / | 2 |
| Modulo | % | 2 |
| Add | + | 3 |
| Subtract | - | 3 |

Output

Each evaluation will output a double-precision floating-point number with up to 10 digits of precision.

**Interface**

Design

(will insert picture here)