


Chapter V

Exercise 01: Reverse Polish Notation

	Exercise : 01
	RPN
	Turn-in directory : <i>ex01/</i>
	Files to turn in : <i>Makefile</i> , <i>main.cpp</i> , <i>RPN.{cpp, hpp}</i>
	Forbidden functions : None

You must create a program with these constraints:

- The program name is RPN.
- Your program must take an inverted Polish mathematical expression as an argument.
- The numbers used in this operation and passed as arguments will always be less than 10. The calculation itself but also the result do not take into account this rule.
- Your program must process this expression and output the correct result on the standard output.
- If an error occurs during the execution of the program an error message should be displayed on the standard error.
- Your program must be able to handle operations with these tokens: "+ - / *".



You must use at least one container in your code to validate this exercise.



You don't need to manage the brackets or decimal numbers.

Here is an example of a standard use:

```
$> ./RPN "8 9 * 9 - 9 - 4 - 1 +"  
42  
$> ./RPN "7 7 * 7 -"  
42  
$> ./RPN "1 2 * 2 / 2 * 2 4 - +"  
0  
$> ./RPN "(1 + 1)"  
Error  
$>
```



Warning: The container(s) you used in the previous exercise are forbidden here. The container(s) you used to validate this exercise will not be usable for the rest of this module.