

# CISC 324 Lab 1

Tags:

#OperatingSystems

#CompSci

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1. Why is the code returning the wrong values?  
the source code provided calculates the total for the parent and the child process, but as each process stores its own variables the child total never returns to the parent and gets deleted with the child
2. the issue was fixed using only `os.wait()` and `os.exit()` modifications  
the `os.exit()` method can return an 8 bit value to the parent as a return code, we use this value to return the child's total to the parent process which combines them and reports the accurate total
3. when the value that the child process exceeds 255 we run into overflow problems as the child can only return an 8 bit value with the current system  
the first  $n$  value where this starts happening is:  
 $n = 26$
4. if we were to reverse the child and parent function ( $A(x)$  and  $B(x)$ ) this would let the child take the smaller half of the numbers to be computed, this change allows us to get correct results up to  $n = 45$ , past  $n = 45$  the total the child would need to return is 276 which is not storable in an 8 bit number  
 $n = 46$