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CS-405

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Numeric Overflow Detection

In order to complete this task, I first added an if-else statement to the add\_numbers() method, which checked If the current value of result is greater than the maximum value of that type minus the increment, meaning it has overflowed. I followed the same logic for subtract\_numbers(), but checking if the value of result is less than the decrement value, as in this case, underflow has occurred. If both cases, I had the function return 0. Then for both the test\_overflow and test\_underflow methods, I had them output error messages if overflow or underflow had occurred (if the methods returned 0), or output the result if they had not.  
A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer program

AI-generated content may be incorrect.