# Tree-based calculator

Data Structure And Algorithms | December 19, 2021

## Modify your code according to those requirements:

1. Modify your calculator implementation to handle floating-point numbers not just integers, for instance, $3.2 + 4.8$

2. Claiming your calculator works (it actually does ☺ for your modified implemenation), let's put it to test.
   Implement a function to generate a **string** to be fed to your evaluator to compute the combination $C_r^n = \frac{n!}{r!(n-r)!}$
   **Example 1:**
   $$C_3^{10} = \frac{10 * 9 * 8}{3 * 2 * 1} = 120$$
   **Example 2:**
   $$C_5^{10} = \frac{10 * 9 * 8 * 7 * 6}{5 * 4 * 3 * 2 * 1} = 252$$
   **Required:** implement a function to generate this expression and evaluate it using your evaluator as in the two examples above.

3. In your modified file **Shunting-yard Algorithm.py**, if you feed the expression $3\ 5\ +$ the result will be $8.0$ which is wrong because the expression is invalid, **can you modify your code to detect this type of errors automatically?**
   (Add a condition to **check** for this case only)
   (**Hint** do we expect two adjacent operands?)

Best Of Luck ★

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