

March 2025 Problem of the Month

Make a number within a millionth of π . You may only use numbers from $\{0, 2, 5\}$ but may use as many of each as you like. You can use the four basic operations ($+$, $-$, $*$, $/$), parenthesis, exponentiation, factorial, and roots. Use as few numbers as you can to get within one millionth of π .

For example, here is one way to make 3 using eight total numbers (four 5s, three 2s, one 0) for a total of eight numbers. Now, 3 is not quite close enough to π .

$$\sqrt{25 + 5 + 5 + 2^0} - 5 + 2 = 3$$

Please email solutions to Dr London at slondon@luc.edu in PDF form by 11:59 pm on March 31. Please clearly state your name, whether you are an undergraduate, and your major on your solution. The solution with the fewest numbers will be the winner. Ties will be broken on the relative simplicity of the solution and submission time. Other good solutions may be recognized too.



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