

# October 2023 Problem of the Month

How many 24 digit numbers which contain only the digits 2 and 4 are multiples of 24? You may leave your answer as an expression.

Please email solutions to Dr London at [slondon@luc.edu](mailto:slondon@luc.edu) in PDF form by 11:59 pm on October 31. The solution with the best explanation will be the winner.



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