

The Holiday Puzzle

THIS YEAR: THE DERIVATIVE GRINCH

The derivative grinch, being the mean one, wants you to find

$$\frac{d^{2023}}{dx^{2023}}(x^{12}e^{25x}).$$

If this derivative is not found, all the holiday presents in Mathville will be stuffed up chimneys. If this derivative is found, the derivative grinch's heart will grow 3 sizes, and he will join all the folks in Mathville in welcoming the holidays.

In finding this derivative, you may leave calculations involving large numbers, but you should not end up with any derivative left to find. You should also do it so that the derivative grinch says "It came without computers!"

(The inspiration for this problem, besides Dr. Seuss, will be announced with the solutions.)

On GROUNDHOG DAY, 2024, solutions will be announced and will be posted on the Web at

<http://www.albany.edu/~martinhi/puzzle.html>

Send solutions to me via e-mail or have them placed in my physical mailbox at the address below.

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