MATH PROBLEM OF THE WEEK

Fall 2024

Problem 5

If $a * b = ab + a + b$ (e.g. $2 * 3 = 6 + 2 + 3 = 11$), then calculate the value of

$$Q = (1 * (2 * (3 * (4 * \cdots * (2024 * 2025) \cdots)))).$$

We welcome solutions from everyone. The undergraduate participant from the NMSU main campus with the most correct solutions at the end of the semester will receive an award of $500.

Solutions must be mathematically rigorous and originally obtained by the participants. Participants will be notified if their solutions are correct within a week.

Deadline: Monday, October 28, 10 am
Next problem will be posted on October 28