Problem 4 (due on Monday, March 28)

The number $N=\frac{1}{2}ab(a^4+b^4)$, where a,b are positive integers such that \[a^4+b^4=1+ab(1+2+3+\ldots +(a+b)).\] What is N?

We have not received any solutions. The number $N=2022$. For a complete solution see the following link Solution.