## Fall 2021

## Algorithms and Analysis Tools Exam, Part A

3) (5 pts) ANL (Summations)

What is the simplified closed form of the following summation in terms of n? Please show each step of work. (Note: the bounds on the inner summation are NOT a misprint!!!)

$$\sum_{a=0}^{n} (\sum_{b=a}^{a} 4b)$$