3) (5 pts) ANL (Summations)

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

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

$$\sum_{a=0}^{n}(\sum_{b=a}^{a} 4b) = \sum_{a=0}^{n} 4a = \frac{4n(n+1)}{2} = 2n(n+1)$$

Grading: 2 pts for getting that the sum of 4b is just 4a. 2 pts for the sum of a, 1 pt for multiplying by 4 and simplifying. (Polynomial form also accepted.)