1: Let $a_n = \frac{\ln(3+e^n)}{12n}$. Determine what the sequence converges to, if it converges.

2: Let $a_1 = 2$, $a_{n+1} = \frac{1}{2}a_n + 3$. Write out the first five terms of the sequence, determine if the sequence is bounded and monotonic, and if so, find the limit.