$a_n = (\text{reverse}(\text{num_digits}(\text{min}((\text{max}(\text{reverse}(a_{n-1}), \text{max}(a_{n-1}, a_{n-1}, a_{n-1}), a_{n-2}) + (a_{n-1}+1)), (a_{n-1}-n), a_{n-1}))$