$a_n = \max(\text{num_digits}(\text{reverse}((n+1))), (((((a_{n-2} + a_{n-1}) - a_{n-3}) + 1) - (a_{n-3} + 1)) + ((\text{reverse}(a_{n-3}) + 1) + \text{reverse}(a_{n-3}) + 1))$