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