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