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