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