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