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