Name: _____
Email: _____

Math Club: Biweekly Contest Week Four

Release Date: March 27, 2024
Instructions: Solve the following problem as best you can. The first student to submit the correct solution via email to tamumathcontest@gmail.com or to Jeremy Kubiak in Blocker 336D (with time stamp) wins!

Problem 1. Let $S(n)$ denote the sum of the digits of a positive integer n. Find all solutions to

$$S(n)+S(S(n))+S(S(S(n)))+S(S(S(S(n))))+S(S(S(S(S(n)))))+S(S(S(S(S(S(n))))))=2024.$$

Explain your answer.