

Name: \_\_\_\_\_

**Math Club: Contest Week Four**

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**Release Date:** October 19, 2022

**Instructions:** Solve the following problem the best you can, first to submit the correct solution via email or the secretaries in Room 332 (with time stamp) wins!

**Problem 1.** If  $x + y + z = 0$ , then compute

$$\left( \frac{y-z}{x} + \frac{z-x}{y} + \frac{x-y}{z} \right) \left( \frac{x}{y-z} + \frac{y}{z-x} + \frac{z}{x-y} \right).$$