

University of Colorado
Department of Mathematics
Problem of the Month
February 2021

Find (with proof) all positive rational triples $(x, y, z) \in \mathbb{Q}^3$ such that the three numbers

$$x + y + z, \quad xyz, \quad \text{and} \quad \frac{1}{x} + \frac{1}{y} + \frac{1}{z}$$

are integers.