

Quiz 5

December 2, 2022

1. If (x, y, z) is a Pythagorean triple, then

$$\gcd(x, y) = \gcd(x, z) = \gcd(y, z).$$

2. Prove that there are no solutions in positive integers to the equation

$$x^n + y^n = z^n \quad \text{for } n \in \mathbb{N},$$

n is a multiple of 4.