

2021 WSMO Tiebreaker Round

SMO Team

Tiebreaker Round Problem 1: Find the number of factors of $24^6 - 20^6$.

Tiebreaker Round Problem 2: Real numbers x and y satisfy $x^3 + y^3 = 76895$ and $x + y = 65$. Find xy .

Tiebreaker Round Problem 3: Let S be the set of all values of a such that the area of a triangle with side lengths 5, 7, and a is a positive integer. Find $\sum_{x \in S} (x^2)$.

