

CAMO 2022/3

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TWITCH SOLVES ISL

Episode 137

Problem

Let $a_1 < a_2 < \dots < a_n$ be positive integers such that the set of positive integers can be partitioned into an infinite number of sets, each of the form $\{a_1k, a_2k, \dots, a_nk\}$ for some positive integer k . Prove that $a_i \mid a_n$ for all $1 \leq i \leq n$.

Video

<https://youtu.be/MLRLaRGDr0c>

External Link

<https://aops.com/community/p24734467>

Solution

See Twitch stream.