

Order-of-Magnitude Estimation Club Count (Level 2)

The Question

How many amateur astronomy clubs in the US have their own observatory?

Background

There are numerous astronomy clubs scattered throughout the country, of varying size and participation depending on where they are located. Most of these rely on members bringing and sharing their personal telescopes to events for all members of the club to use. But some have the luxury of their own dedicated observatories! How many such clubs are there?

The Solution

Education Standards

This OoM Estimation problems meets the following standards in **bold**:
Next Generation Science Standards (NGSS):

- Physical Sciences
 - Matter & Its Interactions
 - Motion and Stability: Forces and Interactions
 - Energy
 - Waves and Their Applications in Technologies for Information Transfer
- Life Sciences
 - From Molecules to Organisms: Structures and Processes
 - **Ecosystems: Interactions, Energy, and Dynamics**
 - Heredity: Inheritance and Variation of Traits
 - Biological Evolution: Unity and Diversity
- Earth and Space Sciences
 - Earth’s Place in the Universe
 - Earth’s Systems
 - **Earth and Human Activity**
- Engineering, Technology, and Applications of Science
 - Engineering Design

Common Core Standards (CSS):

- **Counting & Cardinality**
- **Operations & Algebraic Thinking**
- **Numbers & Operations in Base Ten**
- **Number & Operations — Fractions**
- Measurement & Data
- Geometry
- Ratios & Proportional Relationships
- The Number System
- **Expressions & Equations**
- Functions
- **Statistics & Probability**