

Date Completed: \_\_\_\_\_

Mentor Initials: \_\_\_\_\_

A mentor can change everything.



## Density

1. A soil sample has a mass of 2 pounds and a volume of 0.025 cubic feet. What is the density, in pounds per cubic foot, of this sample?
2. What is the volume, in cubic centimeters, of an object with a mass of 25 grams and a density of 5 grams per cubic centimeter?
3. In 2020, Japan had a population of approximately 126 million people and a population density of approximately 347 persons per square kilometer. What value is closest to the area, in thousands of square kilometers, of Japan?
4. A piece of countertop in the shape of a right rectangular prism has dimensions 50 centimeters by 30 centimeters by 2 centimeters. The material of the countertop has a density of 1.8 grams per cubic centimeter. What is the mass of the countertop, rounded to the nearest gram?
5. What is the mass, in grams, of an object with a volume of 200 milliliters and a density of 0.4 grams per milliliter?