## Measurement and Units

## Task 1: Modern Definition of the Meter

As we discussed in class, the historical definition of the meter is one ten-millionth of the distance from the North Pole to the Equator. For this assignment, please look up the modern definition of the meter. You can use sources like Wikipedia or any other reputable encyclopedia. Once you find the modern definition, write it down and explain in what ways it is better than the old definition based on the size of the Earth.

## Task 2: Unit Conversion

Your European friend wants to know your weight. Measure yourself in pounds (lb). Convert your weight from pounds (lb) to kilograms (kg) using the conversion factor provided in class. How many kilograms is that? Show your work.

## Task 3: Traveling in Metric

In your trip planning, you find that the distance between two cities in the country you're visiting is 300 kilometers. Convert this distance to miles using the provided conversion factor. How many miles is it?

## Task 4: Cooking Conversions

You come across a delicious recipe from the country you're visiting, and it lists ingredients in grams. One of the ingredients is 125 grams of flour. Convert this mass to ounces (look up the conversion factor on the internet). How many ounces of flour is needed for the recipe?

