Math 104Q

Group Work on Scientific Notation: Very Large and Very Small

1. The *area* of each face of a cube measures 121 square meters. Calculate the volume of the cube in *cubic millimeters.* Give your answer in scientific notation.

Answer: _____.

2. The distance that light travels in one year is approximately 5.87×10^{14} miles. How far does light travel in 4 weeks? Write your answer in scientific notation, rounded to three decimal places.

Answer: _____.

3. According to the Medical College of Wisconsin, the average American consumes 83 grams of fat in a single day. If the population of the U.S. is 274,850,947 people, what is the total number of fat grams consumed by Americans in a single day? Write your answer in scientific notation, rounded to three decimal places.

Answer: _____.