

Name \_\_\_\_\_ Period \_\_\_\_\_

### A Mole of Reality

The quantity one mole is  $6.02 \times 10^{23}$ . This is also known as Avogadro's number. While Avogadro's number is usually used to measure things that are incredibly small, such as atoms and molecules, we are going to relate it to something a bit larger. You will be given a sample of some common item. You need to use the tools available to you to measure the mass and length. We will then relate a mole of these things to some known dimensions in the world around us.

Identity of your item \_\_\_\_\_ Length, in cm \_\_\_\_\_ cm Mass, in grams \_\_\_\_\_ g

**Distance:** Compare the length of a mole of \_\_\_\_\_ to the distance from the Earth to the, which is \_\_\_\_\_.

Calculations:

This tells me that \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Mass:** Compare the mass of a mole of \_\_\_\_\_ to the mass of \_\_\_\_\_

Calculations:

This tells me that \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_