

Name: _____ Date: _____

What Does a Million Look Like?

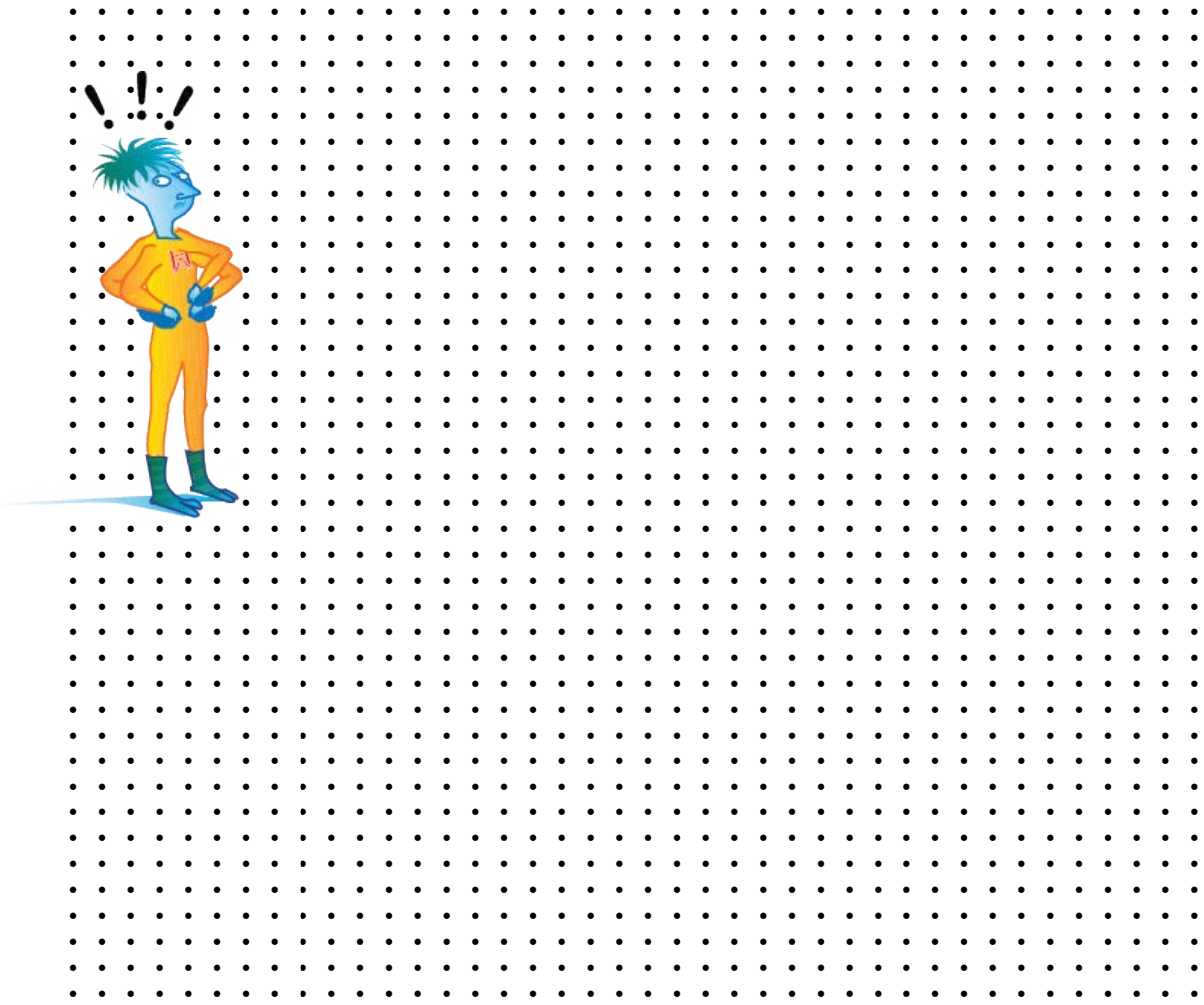
By Kirk Fitch

When we study the age of the Earth, solar system, and universe, we are dealing with huge numbers. The size of these numbers is very hard for people to comprehend. To gain a better idea of the magnitude of these numbers, we are going to count dots – millions, billions, and trillions of them.

Please read all questions carefully and show any work necessary to calculate your answers. All questions refer to the number of dots on the back of this paper.

1. How many dots are there on the back of this paper? _____
2. How many pages would it take to make 1 million (1,000,000) dots? _____
3. How many pages would it take to make 1 billion (1,000,000,000) dots? _____
1 trillion (1,000,000,000,000) dots? _____
4. If 2.5 centimeters equals 250 pages, how many centimeters of paper would it take to make 1 million dots? _____ 1 billion dots? _____
1 trillion dots? _____
5. There are approximately 7 billion people in the world. If each dot represented one person, how many pages would be necessary to show Earth's population? _____
6. How many centimeters of dotted paper would represent the population of the world? How many meters? Compare the height of this stack of paper to a tall office building. If each story equals 3 meters, how tall would the building be?

Answers: _____ centimeters, _____ meters, _____ stories.



Please show all of your work in the space below.