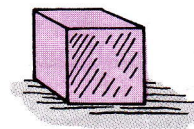


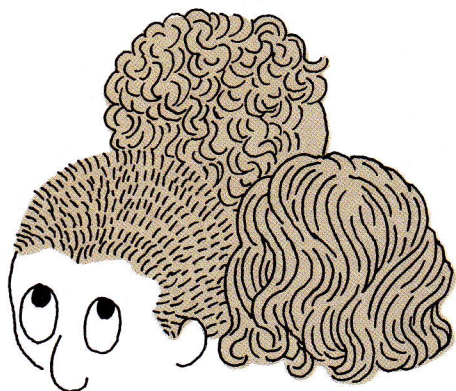
# M Weekly Problem

There are about **10,000,000** (10 million) molecules along the edge of a 1-centimeter crystal like this one. That is a **huge** number! Here are 2 ways to help you picture it.

- a) There are about **100,000** hairs on the average head. If you wanted to have **10,000,000** hairs in one room, how many heads would you need? \_\_\_\_\_



- b) There are **470** names on one page in an average telephone book. If each molecule were a name, about how many phone book pages would it take to list **10,000,000** names? \_\_\_\_\_



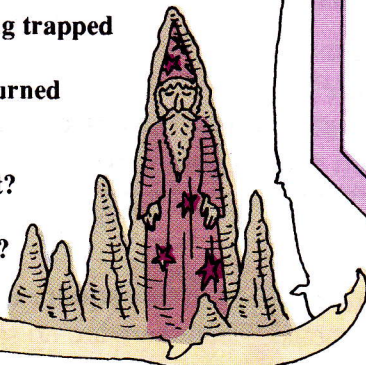
## Writing for Science

### Past Fiction

According to the legend, **Merlin** (the famous wizard and sorcerer of King Arthur's Court) began to teach his magic arts to a beautiful young apprentice, when he was very old. When she had learned all of his secrets, she cast a spell on him and trapped Merlin in a magical Crystal Cave for all eternity.

As luck would have it, you happen to notice a very large, unusually shaded crystal rock, while you are exploring caves in England this summer. After chipping away at the rock with your pick, you see that a strange man is indeed beginning to move *inside* the rock. What questions will you ask Merlin when you finally set him free?

- What was it like for Merlin being trapped inside a crystal all these years?
- Have all his magical powers returned now that he's free?
- What would you like to know about King Arthur and Camelot?
- What favor can Merlin grant you as a reward for freeing him?



### YOUR CHOICE

### Future Fiction

You are a crew member on the **Starship EmeraldPrize**, the only ship to ever reach the mysterious **Crystal Planet**. *Your mission: to explore strange new worlds.* The captain has asked you to keep a diary of the ship's voyage to this unusual shining planet.

- Describe your ship's landing on this planet.
- What was the landing surface like?
- How did the planet look, feel, and sound?
- What special exploring tools did you need?
- What were the inhabitants of this planet like?

