After opening an ancient bottle you find on the beach, a Djinni appears. In payment for his freedom, he gives you a choice of either 50,000 gold coins or one magical gold coin. The magic coin will turn into two gold coins on the first day. The two coins will turn into four coins total at the end of two days. By the end or the third day there will be eight gold coins total. The Djinni explains that the magic coins will continue this pattern of doubling each day for one moon cycle, 28 days. Which prize do you choose?

When you have made your choice, answer these questions:

1. The number of coins on the third day will be 2×2×2. Can you write another expression using exponents for the number of coins there will be on the third day?
2. Write an expression for the number of coins there will be on the 28th day. Is this more or less than a million coins?
3. Create a graph to show the expression for the number of coins from the 1st to the 28th day.