Your answers should be in prose (meaning complete sentences). A small number of paragraphs should suffice for each numbered question.

1. In the mathematical sense of the word, what is a *permutation*?
2. In the mathematical sense of the word, what is a *group*?
3. What are the three “crucial ingredients” of Galois’ proof, according to the author Livio?
4. What is *non-Euclidean geometry*?