## Applied Algebra

Instructions Please write your name in the upper right-hand corner of the page. Use complete sentences, along with any necessary supporting calculations, to answer the following questions.

1. State the definition of a group.
2. Consider the set of positive integers equipped with the following binary operation: $a * b$ equals the least common multiple of $a$ and $b$. Does this operation provide a group structure on the positive integers? Explain.
