Scientific Notation II: The Mantissa

1) Does the scheme for expressing large numbers in terms of mantissas and exponents suggest ways to simplify large multiplications such as the number of protons in the galaxy? Explain your answer.

2) What relationship do you expect to find between the exponents and mantissas in the expression (A x 10^N) x (B x 10^M) = (C x 10^X)? Why?