

Homework #1  
Math 518 - Mathematical Modeling and Applications  
Spring 2006

The following homework assignment may be worked on with other members of your team, however, each individual must hand in their own answers. Your answers should be clearly communicated. Pay particular attention to communicating large or small numbers in a way that can be commonly understood!

1. If all of the human blood in the world were spilled into the Great Lakes, what color would they be?
2. How many bricks are there in Ewing Hall? On the campus of UD?
3. If you spread all of the water in the Great Lakes evenly across the continental U.S., how deep would it be? If you only spread the water across the state of Delaware, how deep would it be?
4. How many pieces of spaghetti would you need to completely cover the floor of Purnell 233B? How many boxes of spaghetti would you have to buy?
5. If you broke a piece of spaghetti in half, then broke one of the halves in half, and so on, 50 times, how long would the resulting piece be? (Be sure to give me a feel for the answer!)