

## Taking Measurements at Home HW

*Using the equipment around your house, take the following measurements to the correct number of significant figures. If the only measuring devices you have are nonmetric, that's OK – the rules for significant figures work just as well for English units.*

- 1) Find your weight: \_\_\_\_\_
- 2) Find your height: \_\_\_\_\_
- 3) Find the width of your body: \_\_\_\_\_
- 4) Find the depth (front to back) of your body: \_\_\_\_\_
- 5) Using your answers from questions 2 through 4 above, find the volume of your body to the correct number of significant figures. Assume, for simplicity's sake, that your body is a rectangular prism. Show your work below:
  
- 6) Using your body weight and your volume, calculate your body density to the correct number of significant figures. Show your work below:
  
- 7) How accurate do you believe your answer from #6 is? What percent error do you believe is involved with this calculation?
  
- 8) Give specific suggestions for how you would decrease the percent error of your body density calculation.