

Taking Measurements at Home Homework

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.