



Unit 3: Answers to Homework  
Problems (continued)

(2)

$$64. (a) 227 \text{ g} \times \frac{1 \text{ mL}}{0.660 \text{ g}} = 344 \text{ mL}$$

← from Table 1.6, invert density so units cancel + you calculate "mL" instead of "g<sup>2</sup>/mL"!!

$$(b) 494 \text{ g} \times \frac{1 \text{ mL}}{0.917 \text{ g}} = 495 \text{ mL}$$

← density of ice

66. person's mass

$$68. 51 \text{ lb} \times \frac{1 \text{ kg}}{2.20 \text{ lbs}} = 2.3 \text{ kg of potatoes}$$

(2), (1), (3)

$$70. \text{ mass of metal chips} = 18.43 \text{ g} - 1.21 \text{ g} = 17.22 \text{ g}$$

$$\text{density} = \frac{17.22 \text{ g}}{3.29 \text{ cm}^3} = 5.23 \text{ g/cm}^3$$

Appendix A: (found in back of book)