

REVIEW

1. State the number of significant digits in each of the following measurements.

- a. 2.54 cm _____ d. 4.5×10^{-3} g _____
 b. 32.06 kg _____ e. 0.02 km _____
 c. 5400 m _____ f. 2006 s _____

2. Solve the following problems and give the answer to the correct number of significant digits.

- a. $432.2 \text{ m} + 24.04 \text{ m} =$ _____ f. $(1.2 \times 10^6 \text{ m})(3.25 \times 10^4 \text{ m}) =$ _____
 b. $324.54 \text{ cm} - 25.6 \text{ cm} =$ _____ g. $\frac{32.6 \text{ kg}}{125.4 \text{ L}} =$ _____
 c. $28.9 \text{ g} + 300.25 \text{ g} + 2.945 \text{ g} =$ _____ h. $\frac{4.24 \times 10^{-3} \text{ kg}}{2.2 \times 10^{-4} \text{ L}} =$ _____
 d. $54 \text{ m} \times 826 \text{ m} =$ _____
 e. $82.3 \text{ m} \times 1.254 \text{ m} =$ _____

3. Express the following numbers in scientific notation.

- a. 560 = _____ d. 4 320 000 = _____
 b. 0.0048 = _____ e. 0.00065 = _____
 c. 43 200 = _____ f. 101.35 = _____

EXAMPLE**Making Unit Conversions**

$$20 \text{ cm} = \text{_____} \text{ km}$$

$$20 \text{ cm} \times \frac{10^{-2} \text{ m}}{1 \text{ cm}} \times \frac{1 \text{ km}}{1000 \text{ m}} = 2.0 \times 10^{-4} \text{ km}$$

4. Carry out the following conversions using Table 1-1 in your text.

- a. 35 mm = _____ m
 b. 450 cm = _____ mm
 c. 250 km = _____ cm
 d. 1500 μg = _____ g
 e. 346 ms = _____ s
 f. 543 mg = _____ kg