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1. A student measures the width of a wire to be 2.8 mm. How many nanometers is this?  
[1] \_\_\_\_\_
2. How many significant digits are there in each of the following measurements?  
a) 4460 kg  
b) 911.29 cm  
c) 0.6040 g  
[2] \_\_\_\_\_
3. A student determines the density of iron to be  $8.59 \text{ g/cm}^3$ . The correct value is  $7.87 \text{ g/cm}^3$ . Find the percent error in her measurement.  
[3] \_\_\_\_\_
4. Convert each of the following quantities.  
a) 120 joules to calories  
b) 4540 Calories to calories  
c) 1.60 Calories to joules  
[4] \_\_\_\_\_
5. The mass of an object is determined to be 38.9 kg. How many  $\mu\text{g}$  is this?  
[5] \_\_\_\_\_
6. Do the following calculations and express the answer in the correct number of significant digits.  
a)  $15.6 \text{ mL} + 29 \text{ mL} + 28.66 \text{ mL}$   
b)  $0.82 \text{ cm} \times 36.8 \text{ cm}$   
[6] \_\_\_\_\_