



Chemistry

Name: _____

Section _____ %Err Metrics WS Date: _____

Percent Error: Calculate the percent error for these data sets. Include units. Show all equations, substitutions, and then solve for the answer.

1. Experimental value = 1.24 g and the accepted value = 1.30 g.
2. Experimental value = 1.24×10^{-2} g and the accepted value = 9.98×10^{-3} g.
3. Experimental value = 252 mL and the accepted value = 225 mL.
4. Experimental value = 22.2 L and the accepted value = 22.4 L.
5. Experimental value = 125.2 mg and the accepted value = 124.8 mg.

Temperature Conversions: Show equations, substitutions, and units.

1. $0^{\circ}\text{C} = \underline{\hspace{2cm}}$ K
2. $100\text{ K} = \underline{\hspace{2cm}}$ $^{\circ}\text{C}$
3. $450\text{ K} = \underline{\hspace{2cm}}$ $^{\circ}\text{C}$
4. $100^{\circ}\text{C} = \underline{\hspace{2cm}}$ K
5. $-273^{\circ}\text{C} = \underline{\hspace{2cm}}$ K
6. $294\text{ K} = \underline{\hspace{2cm}}$ $^{\circ}\text{C}$
7. $0\text{ K} = \underline{\hspace{2cm}}$ $^{\circ}\text{C}$
8. $225\text{ K} = \underline{\hspace{2cm}}$ $^{\circ}\text{C}$
9. $37^{\circ}\text{C} = \underline{\hspace{2cm}}$ K
10. $-40^{\circ}\text{C} = \underline{\hspace{2cm}}$ K

Metric Conversions: Show conversion factors and units.

1. 35 mL = _____ nL

2. 950 g = _____ kg

3. 275 mm = _____ cm

4. 1000 L = _____ kL

5. 1000 mL = _____ L

6. 4500 mg = _____ g

7. 25 cm = _____ mm

8. 0.005 kg = _____ mg

9. 0.075 m = _____ cm

10. 15 g = _____ mg