PERCENTAGE ERROR

Name _____

Percentage error is a way for scientists to express how far off a laboratory value is from the commonly accepted value.

The formula is:

$$\% \text{ error} = \left| \frac{\text{Accepted Value} - \text{Experimental Value}}{\text{Accepted Value}} \right| \times 100$$

→ absolute value

Determine the percentage error in the following problems.

1. Experimental Value = 1.24 g
   Accepted Value = 1.30 g

   Answer: _____

2. Experimental Value = 1.24×10^{-2} g
   Accepted Value = 9.98×10^{-3} g

   Answer: _____

3. Experimental Value = 252 mL
   Accepted Value = 225 mL

   Answer: _____

4. Experimental Value = 22.2 L
   Accepted Value = 22.4 L

   Answer: _____

5. Experimental Value = 125.2 mg
   Accepted Value = 124.8 mg

   Answer: _____