

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:

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

→
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: _____