

Name _____

Precision Quest

Directions: For each challenge, calculate the percent error for each measurement. Then identify the most accurate measurement by choosing the one with the smallest percent error. Round to the nearest tenth of a percent.



$$\text{Percent Error} = \frac{|\text{Measured Value} - \text{Actual Value}|}{\text{Actual Value}} \times 100\%$$

1. Classroom Ruler

Actual pencil length: 18 cm

A. 17.5 cm Percent Error: _____

B. 18.2 cm Percent Error: _____

Most Accurate: _____

2. Basketball Court

Actual free throw distance: 15 ft

A. 14.4 ft Percent Error: _____

B. 15.3 ft Percent Error: _____

Most Accurate: _____

3. Cooking Cup

Actual flour amount: 500 g

A. 490 g Percent Error: _____

B. 505 g Percent Error: _____

Most Accurate: _____

4. Wood Board

Actual board length: 120 cm

A. 118 cm Percent Error: _____

B. 123 cm Percent Error: _____

Most Accurate: _____

5. Soccer Ball

Actual mass: 450 g

A. 444 g Percent Error: _____

B. 459 g Percent Error: _____

Most Accurate: _____

6. Water Bottle

Actual volume: 750 mL

A. 735 mL Percent Error: _____

B. 760 mL Percent Error: _____

Most Accurate: _____