

Lab – Measurement (scoring rubric)

Title: (+1)

DIRECT MEASUREMENT –

Objective: (+1)

Materials: no special apparatus needed (+1)

Procedure: describe both methods (+2)

Data: Table #1 (+3)
Table #2 (+2)
Table #3 (+2)
Uncertainties of tools (+1)

Analysis:

Calculations
- $V = \pi r^2 h$ (+1)
- $D = M \div V$ (+1)
- % error (+1)

Questions: (+3)

Error Analysis:

- mention % error (+1)
- uncertainty of tools (+1)

Conclusions:

- task, results, generalization (+3)
- which method is better?

INDIRECT MEASUREMENT –

Procedure: describe methods for textbook page, rice, and tall object (+4)

Data: Table #1 (+3)
Table #2 (+2)
Uncertainties of tools (+1)

Analysis:

Calculations
- Thickness of page (+1)
- Mass of rice (+1)

- Right Triangle Trig (+1)
- Similar Triangle Method (+1)

Questions: (+4)

Error Analysis:

- limitations of methods (+1)
- uncertainty of tools (+1)

Conclusions:

- task, results, generalization (+3)
- which method is better?

TOTAL 47