Lab Sheet

Groups of 3 or 4. Object measured: _____ MPM2D, Similar and Right Triangles, Lesson 4

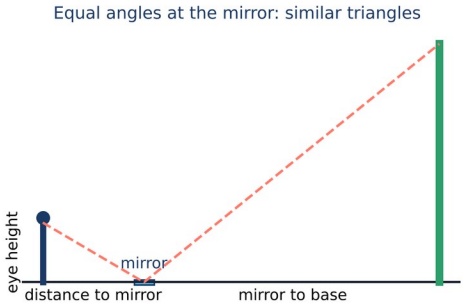
Name: _____ Date: _____

Roles: measurer _____ recorder _____ spotter _____ checker _____

Shadow method

	Trial 1	Trial 2	Mean
Student's height (m)			
Student's shadow (m)			
Object's shadow (m)			

Mirror method



	Trial 1	Trial 2	Mean
Eye height (m)			
Student to mirror (m)			
Mirror to object (m)			

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Analysis

Independent. Use your data, or the rainy-day data below. MPM2D, Similar and Right Triangles, Lesson 4

Name: _____ Date: _____

> **Rainy-day data (a light standard)**
> Shadow method: student 1.70 m tall, student's shadow 2.55 m, light standard's shadow 12.6 m.
> Mirror method: eye height 1.55 m, student to mirror 1.25 m, mirror to base 6.5 m.

1. Calculate the height using the shadow method. Show your proportion.

2. Calculate the height using the mirror method.

3. Compare the two results. Find the percent difference.

4. List three sources of error in your measurements.

5. Suggest two ways to improve the accuracy.

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