# Data

What object are you measuring? _____

*Make sure your object is too tall to measure with other tools!*

How high is the eye level of the "measurer"? _____ft, _____in

Convert this to a decimal. (Use the table below) _____ ft

| **X feet, 0 in** | **X feet, 1 in** | **X feet, 2 in** | **X feet, 3 in** | **X feet, 4 in** | **X feet, 5 in** | **X feet, 6 in** | **X feet, 7 in** | **X feet, 8 in** | **X feet, 9 in** | **X feet, 10 in** | **X feet, 11 in** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **X.**00 ft | **X.**08 ft | **X.**17 ft | **X.**25 ft | **X.**33 ft | **X.**42 ft | **X.**50 ft | **X.**58 ft | **X.**67 ft | **X.**75 ft | **X.**83 ft | **X.**92 ft |

↑

For example, if your eye level is **5 feet** *2 inches* above the ground, this table tells you that is **5.***17* feet

## Record Your Data Below:

| **Trial #** | **Distance from Object** (feet) | **Angle of Elevation** (degrees) |
|---|---|---|
| **#1** (Object #1) | | |
| **#2** (object 1, different distance) | | |
| **#3** (Object #2) | | |
| **#4** (object 2, different distance) | | |

# Calculations

What object did you measure? _____

How high is the eye level of the "measurer"? _____ feet (as a decimal)

Now you will estimate the height of two different objects in the real world environment.

**1. Object #1** Distance from Object: Angle of Elevation:

_____ ft _____

Sketch and label a diagram in the space below, then find the height based on your measurements. Don't forget to incorporate your "eye-level height" in your calculations! Show work neatly.

Estimate of height of the object:

_____ ft (one decimal place)

**2. Object #2** Distance from Object: Angle of Elevation:

_____ ft _____

Sketch and label a diagram in the space below, then find the height based on your measurements. Don't forget to incorporate your "eye-level height" in your calculations! Show work neatly.

Estimate of height of the object:

_____ ft (one decimal place)