

name _____

ID# _____

Experiment 10

Two Lens Optical Instruments

The Microscope

Focal length of objective _____

Focal length of eyepiece _____

Position of objective _____

Position of eyepiece _____

Estimated magnification _____

The Astronomical Telescope

Focal length of objective _____

Focal length of eyepiece _____

Position of objective _____

Position of eyepiece _____

Estimated magnification _____

The Galilean Telescope

Focal length of objective _____

Focal length of eyepiece _____

Position of objective _____

Position of eyepiece _____

Estimated magnification _____

Analysis

The Microscope

Theoretical angular magnification

show calculation

% difference _____

The Astronomical Telescope

Theoretical angular magnification

show calculation

% difference _____

Distance between lenses _____

Sum of focal lengths _____

% difference _____

The Galilean Telescope

Theoretical angular magnification

show calculation

% difference _____

Distance between lenses _____

Sum of focal lengths _____

% difference _____

(8 points)

