

Name _____ Date _____ Moravian University

Name _____ Each person hands in a separate lab exercise.

PHOTOGRAPH OR DRAW A PICTURE THROUGH A TELESCOPE

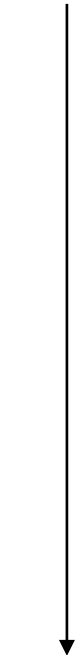
(10 points)

Instructions: *NEVER LOOK AT THE SUN WITH YOUR GALILEO TELESCOPE!*

Each person will be responsible for making her or his own drawing **in pencil** and responding to the information on the next page. **Drawings made with a pen will automatically receive a zero.** With a partner, sketch the moon, the Pleiades, or a terrestrial object. A favorite of Moravian classes has been the Star of Bethlehem located on South Mountain, but there are many other interesting objects that can be seen along the horizon or in the sky. Your partner's shoulder can act as a stabilizer so that you can steady your telescope. After your drawing is completed, switch around so your colleague can make an illustration too. Draw the image **EXACTLY** as it appears through your telescope and at the proper scale. The circle below represents the field of view as seen through your instrument's eyepiece. Keep in mind that Galileo's original telescopes, on a scale of 1-10, would have been judged a one, compared to the telescope that you are using today (3 points).

Instrument used:

What are you observing?



**DRAWING
PHOTO
(Circle One)**



Hint: Consider taking a picture through your telescope with your cell phone and using it to render a more accurate drawing.

Note: If one team member photographs, the other team member must make a drawing through the scope.

Instructions: After constructing your drawing, create a jot list with respect to the problems that you have encountered using your telescope. Many people have the misconception that when they look through a scope, the universe will be revealed to them with the clarity of an image taken through the Hubble Space Telescope. The truth is that with telescopes or binoculars, nothing comes easily. Making useful observations or taking good images of the night sky are not simple tasks. Describe six problems that you experienced while using your telescope, and don't be afraid to speak to others about these difficulties (4 points).

1.

2.

3.

4.

5.

6.

Instructions: Based upon the problems you have experienced using your Galileo telescope to make your drawing, enumerate four criteria that you would be looking to achieve in the purchase of a good telescope (3 points).

1.

2.

3.

4.