

Ast 101 – Lab Activity #1

The Metric System and Angular Measurement

Name: _____ Date: _____ Campus: _____

I. Metric System

1c. _____ 2a. _____

d. _____ e. _____

e. _____

4b. _____ mm = _____ cm

j. Coin: _____ cm actual

Key: _____ cm actual

II. Angle Measurements

1a. _____

b. _____

f. _____

g. _____

k. _____

2a. _____

Ast 101 – Lab Activity #2

Drawing the Solar System to Scale

Name: _____ Date: _____ Campus: _____

The following table of diameters of solar system objects should be converted using the scale found in the lab activity. Be sure to use the values for the sizes as shown on this page and not the values in the lab activity.

Name	Actual Approximate Diameter (km)	Scale Diameter (cm)
Mercury	4900	_____
Venus	12100	_____
Earth	12800	_____
Moon	3500	_____
Mars	6800	_____
Jupiter	137000	_____
Io	3500	_____
Europa	3100	_____
Ganymede	5000	_____
Callisto	4900	_____
Saturn	115000	_____
Titan	4800	_____
Uranus	50100	_____
Neptune	49000	_____
Triton	3800	_____
Pluto	5800	_____

Ast 101 – Lab Activity #3

Equatorial System

Name: _____ Date: _____ Campus: _____

RA

Dec

Star

1. A _____

B _____

2. F a. _____

b. _____

c. _____

5. C _____

Ast 101 – Lab Activity #4

Phases of the Moon

Name: _____ Date: _____ Campus: _____

1d. 1 _____

2. _____

3. _____

4. _____

3a. Aa _____

b _____

Ba _____

c _____

Fa _____

c _____

Ast 101- Lab Activity #5

Questions from Cosmos - "Harmony of the Worlds"

Name: _____ Date: _____ Campus: _____

- 1). A stellar graveyard was referred to as the? 1). _____
2. Which planet has a giant, on going storm? 2). _____
3. Who was the last scientific astrologer? 3). _____
4. Is our planet under the influence of a star? If so which one? 4). _____
5. Which constellation represents Charles' Wagon? 5). _____
6. What day did the niche of the Anasazi Temple become illuminated? 6). _____
7. How many planets did the ancients know about? 7). _____
8. Whose system of wheels within wheels was used to model the motion of the planets? 8). _____
9. Who did Martin Luther call a "fool", upstart astronomer? 9). _____
10. Who wanted to read the mind of God? 10). _____
11. How many regular solids are there? 11). _____
12. What finally drove Kepler to Tycho Brahe? 12). _____
13. (True:False) Tycho's observations where made with a telescope. 13). **True** **False**
14. What shape is the orbit of mars? 14). _____
15. Kepler's second law states that a planet sweeps out equal _____ in equal _____. 15a). _____
15b). _____
16. What makes the planets "go"? 16). _____
17. What was the name of Kepler's science fiction story? 17). _____
18. How many laws of planetary motion did Kepler discover? 18). _____

Lab 6/7
Refraction/Reflection
AST 101 LB

Name: _____ Date: _____

Refraction

Use the angles given in the lab activity.

1. b. _____

c. _____

d. _____

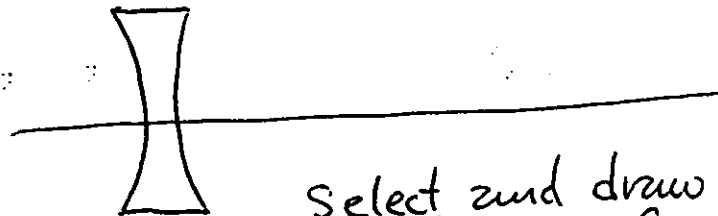
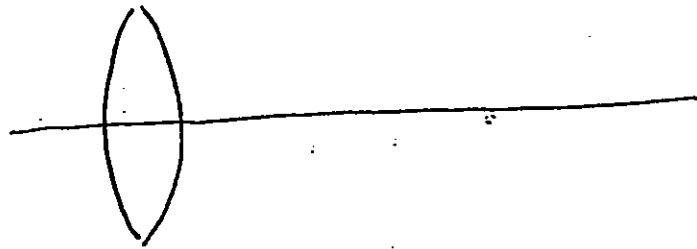
e. _____

3. b. _____

c. _____

9. a. _____

b. _____



Select and draw the ray diagram for 3b.

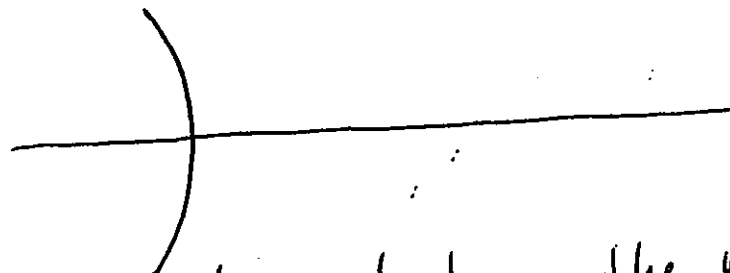
Reflection

2. b. _____

c. _____

3. a. _____

10. c. _____



Select and draw the ray diagram for 2.b

Ast 101 – Lab Activity #8

Telescopes

Name: _____ Date: _____ Campus: _____

- 3) a. _____
b. _____
c. _____
d. _____

- 4) a. _____
b. _____
c. _____
d. _____

Top Strip

Bottom Strip

- 5) a. _____
b. _____
c. _____
d. _____

- a. _____
b. _____
c. _____
d. _____

Ast 101- Lab Activity #9 Questions from Cosmos "Blues for a Red Planet"

Name: _____ Date: _____ Campus: _____

- 1). Which planet has a surface which can be seen from earth? 1). _____
2. Who wrote the "War of the Worlds"? 2). _____
3. Who or what regarded the Earth with envious eyes? 3). _____
4. Who dramatized "War of the Worlds" on radio. 4). _____
5. Who was the wealthy Bostonian who built an observatory on Mars Hill? 5). _____
6. What did the Italian astronomer, Schiaparelli see on Mars? 6). _____
7. Wallace showed that the Martian atmosphere was not thick enough to support. 7). _____
8. The name of Mars according to the author Edgar Rice Burroughs 8). _____
9. The boy who loved sky rockets. 9). _____
10. From an old cherry tree in New England the idea of what machine occurred? 10). _____
11. What was the first planet to be explored by rocket? 11). _____
12. At what resolution are people seen on Earth? 12). _____
13. Are there canals on Mars? 13). _____
14. How fast does the fastest wind blow on Mars? 14). _____
15. (True/False) Olympus Mons is the largest volcano in the solar system 15). True False
16. The name of the robots that landed on Mars. 16). _____
17. Chryse means 17). _____
18. The most abundant Martian atmospheric gas. 18). _____
19. Does Mars have life as we know it? 19). _____
20. The major atom of Earth's life is 20). _____
21. The Wolf Trap was designed to look for 21). _____
22. Wolf Vishniac studied life in 22). _____
23. The process to change Mars into an Earth like planet is called 23). _____
24. Where is the water on Mars? 24). _____
25. Who are the Martians? 25). _____

Ast 101 – Lab Activity #10

Planetary Properties

Name: _____ Date: _____ Campus: _____

2a. Draw the figure below according to the directions given in 2a of the activity.

5a. _____

e. _____

c. _____

f. _____

d. _____

g. _____

10a. Polar Diameter = _____ mm

Equatorial diameter = _____ mm

b.

Ast 101 – Lab Activity #11

Constellations

Name: _____ Date: _____ Campus: _____

Page 3

1c _____

Page 7

3a. _____

b. _____

c. _____

5. _____

7a. _____

Page 8

7d. _____
