

SCORE
(5 pts max)

ASTRONOMY 2
THIRD HOUR SESSION "G"

ACTIVITY: Moon Phases, Phase Age, and the Apollo Missions

NAME KEY-G

DATE

ID#

1. Is a Third Quarter Moon considered to be waxing or waning?

Waning

2. Determine the phase age of the Moon on your birth date this year. Indicate your answer in the first box below. Then set up the Earth-Moon-Sun model to represent the phase age for your birth date. Have the instructor check the model and stamp the second box below if your model is correct.

between 0 and 29
days

Stamp or
signature

3. What will be the phase age of the Moon 16 days after the phase shown in Photo #1 located in the lab? First Quarter photo

23.5 (± 1) days

4. Using the *Moon Calendar* determine the "phase age" of the Moon for October 27 of this year. Is this also the phase age of the Moon on the same date in the previous year?

18 (± 1) days

no

5. Using the *Moon Calendar* find which Full moon this year is/was furthest from to the earth?

July 27 (apogee occurs on day)

For the remaining questions, consult the moon map in front of the room

6. During which "quarter" phase of the Moon (first or third) is Mare Crisium visible from Earth? (Inspect the large Moon map in the lab)

First

(Questions continue on back)

For problems 7-12, refer to the large Moon map in the rear of the lab and the approximate lunar longitudes and latitudes of the Apollo landings listed below

Apollo 11:	23.5 deg E	1 deg N
Apollo 12:	23.5 deg W	3 deg N
Apollo 14:	17.5 deg W	4 deg N
Apollo 15:	3.5 deg E	26 deg N
Apollo 16:	15.5 deg E	6 deg S
Apollo 17:	31.0 deg E	20 deg N

7. Which mission landed closest to the terminator of a First Quarter Moon?

15

8. Which mission landed closest to a crater named after the proponent of the Heliocentric Theory of the Solar System?

14

9. Identify one mission (of several) which landed on the moon in a region described as *maria*.

Either 11, 12, or 14

10. Identify one mission (of several) which landed on the moon in a region described as *highlands*.

Either 15, 16, or 17

11. Why are there no landing coordinates given for Apollo 13?

It did not land on the moon.

12. What are the approximate coordinates of the crater Kepler ?

Lat= 8° N

Long=38° W