

SCORE
(5 pts max)

**ASTRONOMY 10
THIRD HOUR SESSION "D"**

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

NAME

DATE

ID#

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

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

3. 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.

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4. What will be the phase age of the Moon _____ days after the phase shown in Photo #1 located in the lab?

5. Using the *Moon Calendar* determine the "phase age" of the Moon for _____. Is this also the phase age of the Moon on the same date one year previous?

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6. Where in the sky (rising, high in east, on the meridian, high in the west, setting, not above the horizon) would you expect to see a _____ moon at sunset?

7. If we assume that sunset is at 6PM and sunrise is at 6AM, approximately what time would a _____ moon rise?

8. If we assume that sunset is at 6PM and sunrise is at 6AM, which phase of the moon would rise near the time _____ ?

(Questions continue on back)

For problems 9-13, 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

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

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

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

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

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