

The MOON

Name _____

Directions: define the following terms.

barycenter -	sidereal month -	synodic month -	perigee -
apogee -	spring tide -	neap tide -	phases (Moon) -

Directions: give the best answer to the following questions.

1. Through the night, the Moon appears to move from east to west slightly more slowly than the stars. This is because the Moon orbits the Earth in an _____ direction.

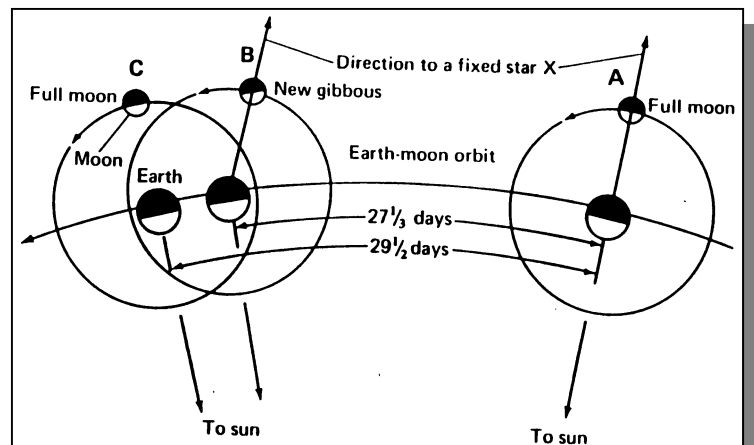
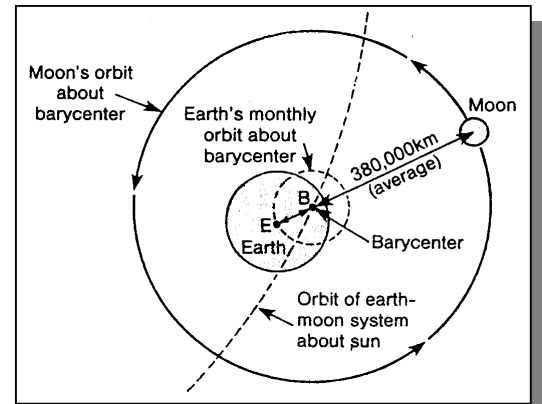
2. Square dancers sometimes “swing their partners.” If one partner is bigger than the other, he or she tends to pivot more or less in one spot while the smaller partner gets swung around in wide circles. In the

Earth-Moon system, the Earth actually orbits the Moon a little bit, but since Earth’s the bigger partner, the Moon has the widest orbital path. The Earth-Moon system rotates around a common center, located inside _____, called the _____.

3. The same side of the Moon always faces Earth, so we never see the “far side.” This is because _____

4. The Moon takes _____ days to orbit the Earth (from A to B in the diagram). This is called a _____ month.

5. But the Moon takes _____ days from one full Moon to the next (from A to C – the Moon has to “catch up” to Earth). This is called a _____ month.



6. Let's say you watch the Moon rise at 9pm one night. The next night, you go out at 9pm to see the Moon and it's not there. Why? _____

7. The apparent diameter of the Moon changes over a month because the Moon's orbit is _____.

8. The Moon comes closest to Earth, and is travelling the fastest, at _____, and is farthest away from Earth, and travelling the slowest, at _____.

9. The ocean tides are caused mainly by the _____ attraction between Earth and _____.

10. According to the diagram above, why are tides the highest (and lowest) during "spring tides?" _____

11. During a *lunar eclipse*, the _____ passes between the Sun and _____, so its shadow falls on the _____.

12. During a *solar eclipse*, the _____ passes between the Sun and _____, so its shadow falls on the _____.

13. Why is a solar eclipse only seen in certain places on a given day?

14. The diagram at right shows the Moon's orbital plane, in relation to the Earth's orbital plane. Can you explain why we don't have lunar eclipses every month? _____

