

Name:

Discussion section:

Date:

Discussion Review Test #1

Units 1-4:

(1)

What larger group of galaxies is the Milky Way located in?

- a. The Local Group
- b. The Andromeda Group
- c. The M31 Group
- d. The Mars Bars Group

(2)

An AU is the distance between

- a. Earth and Mars
- b. Sun and Earth
- c. Earth and the Moon
- d. Sun and Pluto
- e. Observatory Drive and Johnson

(3)

Which of the following size orders is correct (smallest to largest)?

- a. Galaxy, earth, cluster, group, supergroup
- b. Earth, solar system, galaxy, group, cluster
- c. Earth, solar system, galaxy, cluster, group
- d. Earth, galaxy, solar system, cluster, group
- e. Galaxy, solar system, cluster, earth, group

(4)

Convert 742 km to millimeters

- a. 7.42×10^8
- b. 7.42×10^5
- c. 74.2×10^8
- d. 7.42×10^6

(5)

) The radius of the Earth is 6400 km, and the radius of the Sun is 7.0×10^5 km. If the sun is a grapefruit with a radius of 35 cm, what is the radius of the Earth?

- a. 0.32 cm
- b. 3.2 cm
- c. 0.32 km
- d. 0.032 cm
- e. 0.032km

(6)

1.9327×10^8 can also be written as

- a. 0.000000019327
- b. 19327
- c. 193270000
- d. 19327000

(7)

What is $10^8/10^5$?

- a. 10^3
- b. 10^2
- c. $10^{(8/5)}$
- d. 10^{13}

Units 5-11

(8)

What causes the seasons?

- a. The changing distance between the earth and the sun
- b. The tilt of the earth on its rotation axis
- c. The atmospheres' blocking of solar radiation
- d. Lunar cycles
- e. None of the above

(9)

When do planets undergo retrograde motion?

- a. Every night
- b. When the planets are eclipsed by their moons
- c. When the planets go through an epicycle
- d. When a planet on a smaller orbit overtakes and passes another planet on a larger orbit

(10)

During what season is the sun highest in the sky (in Madison, WI)?

- a. Summer
- b. Winter
- c. Spring
- d. Fall

(11)

-) What is an effect of the earth being tilted 23.5 degrees on the weather in Seattle, WA vs. Sydney, Australia?
- No effect
 - It is warm and sunny year round in Sydney, because the southern hemisphere is always tilted closer to the sun.
 - There are different seasons in both Madison and Sydney at different times of the year
 - Tides are higher in Australia than in Seattle

(12)

-) Earth has an elliptical orbit, and has its slowest orbital velocity in July. When is Earth farthest from the sun?
- Summer
 - Winter
 - Fall and Spring
 - The distance is always the same

(13)

- List in order from shortest to longest time scale, Earth's:
- Precession, Orbit, Spin
 - Spin, Orbit, Precession
 - Orbit, Spin, Precession
 - Depends on the time of year

(14)

- During a solar eclipse,
- the Earth's shadow falls on the sun
 - the moon's shadow falls on the Earth
 - the sun shadow falls on the moon
 - the Earth's shadow falls on the moon

(15)

- The phases of the moon are caused by:
- seeing different amounts of the moon's surface illuminated by the sun
 - Earth's shadow projected onto the moon's surface
 - The same side of the moon is always seen from Earth
 - Both a and c

(16)

- Eclipses are relatively rare due to:
- Earth's 23.5 degree tilt
 - The Moon's fast rotation about the Earth
 - The tilt of the moon's orbit relative to the ecliptic
 - All of the above

(17)

- The circular shape of the Earth's shadow on the moon led early astronomers to conclude that:
- the Earth is a sphere
 - the Earth is at the center of the Solar System
 - the Earth must be at rest
 - the moon must orbit the sun

(18)

The ancient Greek's are NOT credited with:

- a. measuring the size of the Earth
- b. finding the relative sizes of the Earth and the moon
- c. determining that the Earth is round
- d. detecting the parallax of stars
- e. suggesting a heliocentric model of the solar system

(19)

If the moon were half as far away from the Earth, its angular size would be:

- a. twice as big
- b. half as big
- c. four times as big
- d. one-quarter as big
- e. the same as it is now

(20)

Planets remain close to the ecliptic because:

- a. The solar system is approximately flat
- b. The Earth rotates about the sun
- c. The precession of the Earth
- d. All of the above