

Astronomy Test Review

KEY

- 1) What is the name of the line of longitude that measures 0 degrees?

Prime Meridian

- 2) What is the name of the line of latitude that measures 0 degrees?

Equator

- 3) Explain why when its summer in Winnipeg Canada, its winter in Sydney Australia.

The Earth's Tilt. Northern Hemisphere and Southern Hemisphere will be tilted opposite ways at any given point in time, causing seasons to be opposite

- 4) The geocentric view can be described as

- a. Theory that the earth orbits around the sun
- b. Theory that the earth orbits around the moon
- c. Theory that the sun orbits around Jupiter
- d. Theory that the sun orbits around the earth

- 5) The heliocentric view can be described as

- a. Theory that the earth orbits around the sun
- b. Theory that the earth orbits around the moon
- c. Theory that the earth orbits around Jupiter
- d. Theory that the sun orbits around the sun

6) An elliptic orbit is an orbit that is in what shape?

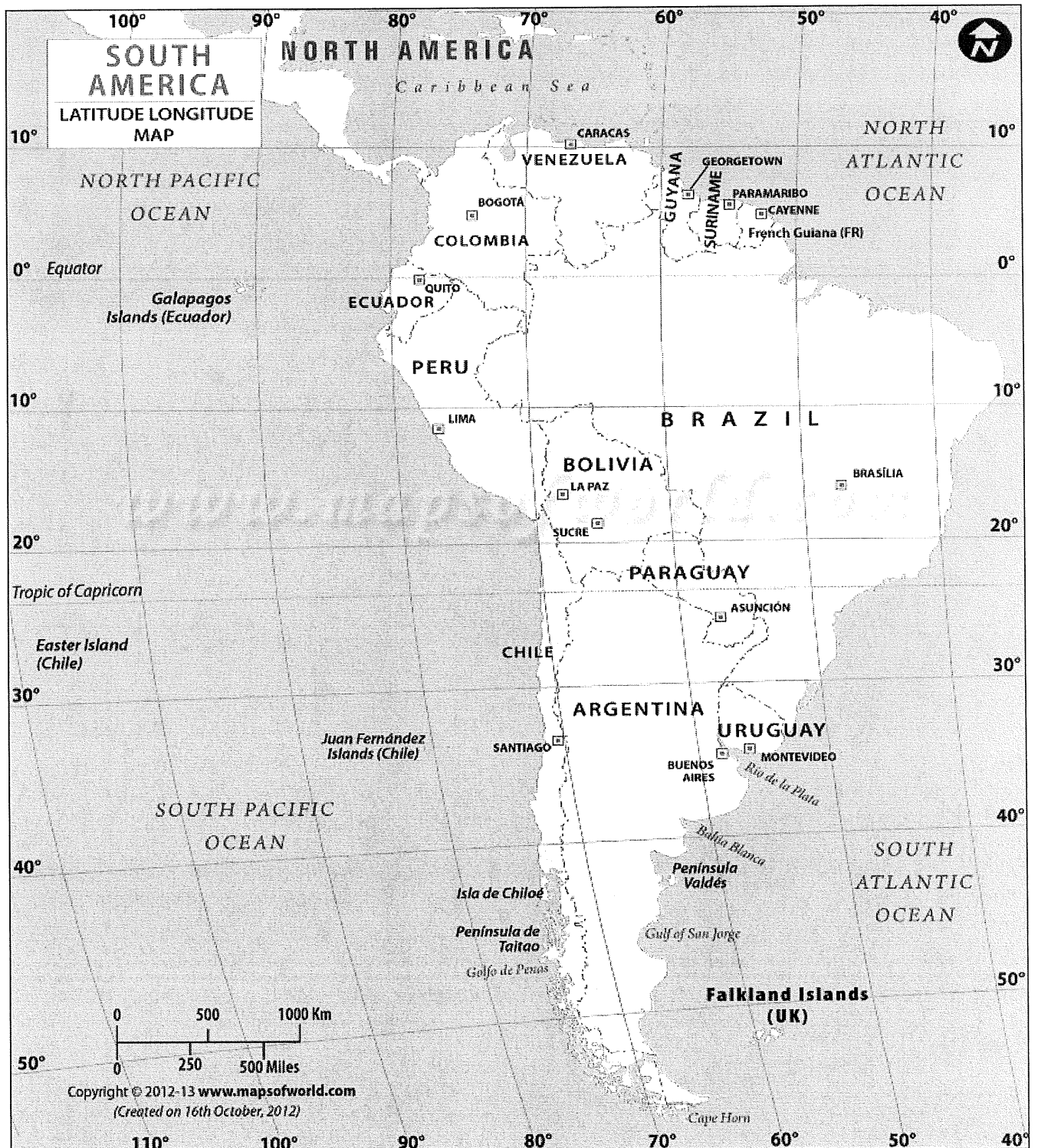
- a. Circle
- b. Square
- c. Oval
- d. Linear

7) What is the name given to the two days of the year when we have equal amounts of daytime and nighttime?

- a. Solstice
- b. Equinox
- c. Earth day
- d. Harvest moon

8) What is the Earth's tilt?

- a. 98 degrees
- b. 50 degrees
- c. 14.5 degrees
- d. 23.5 degrees



Please use the above image to answer the following five questions.

9) What are the coordinates of Santiago Chile?

- a. 19 degrees S, 65 degrees W
- b. 16 degrees S, 47 degrees W
- c. 34 degrees S, 71 degrees W
- d. 10 degrees S, 66 degrees W
- e. 0 degrees, 77 degrees W

10) What are the coordinates of Quito Ecuador?

- a. 19 degrees S, 65 degrees W
- b. 16 degrees S, 47 degrees W
- c. 34 degrees S, 71 degrees W
- d. 10 degrees S, 66 degrees W
- e. 0 degrees, 77 degrees W

11) What are the coordinates of Brasilia Brazil?

- a. 19 degrees S, 65 degrees W
- b. 16 degrees S, 47 degrees W
- c. 34 degrees S, 71 degrees W
- d. 10 degrees S, 66 degrees W
- e. 0 degrees, 77 degrees W

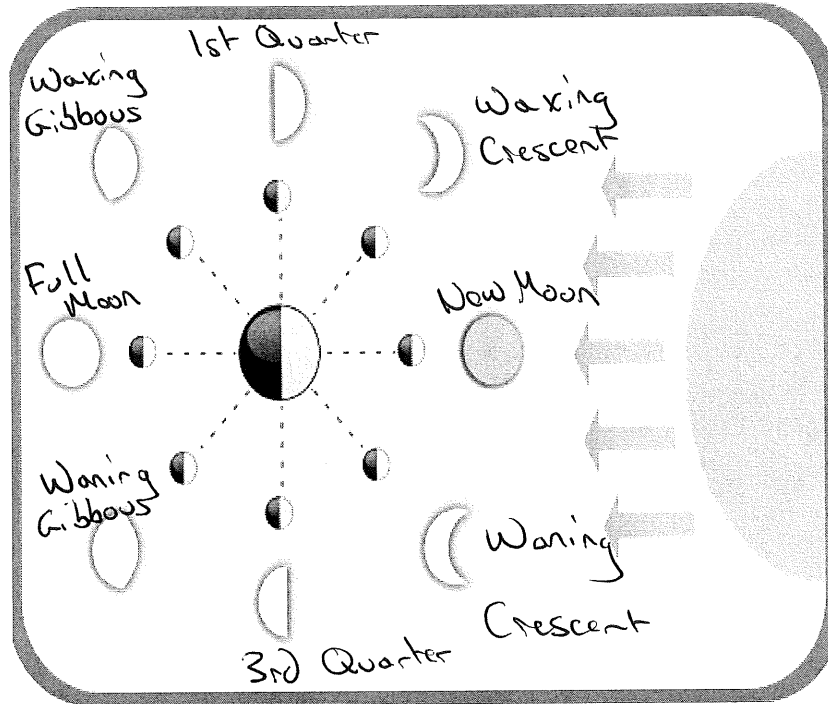
12) What are the coordinates of Caracas Venezuela?

- a. 19 degrees S, 65 degrees W
- b. 16 degrees S, 47 degrees W
- c. 34 degrees S, 71 degrees W
- d. 10 degrees N, 66 degrees W
- e. 0 degrees, 77 degrees W

13) What are the coordinates of Sucre Bolivia?

- a. 19 degrees S, 65 degrees W
- b. 16 degrees S, 47 degrees W
- c. 34 degrees S, 71 degrees W
- d. 10 degrees S, 66 degrees W
- e. 0 degrees, 77 degrees W

14) Please label the 8 phases of the moon. Note that the dark moon on the right is the "new moon"



15) How long is the lunar cycle?

- a. One week
- b. One year
- c. One month
- d. One day

16) The term "waxing" refers to when the moon is

- a. Becoming larger (visually)
- b. Becoming smaller (visually)
- c. Getting hotter
- d. Getting colder

17) The term “waning” refers to when the moon is

- a. Becoming larger (visually)
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18) Scientists are predicting that in England next week the earth will pass perfectly in between the sun and the moon, casting a shadow on the moon. What is this called?

- a. Lunar eclipse
- b. Solar eclipse
- c. Solar solstice
- d. Lunar solstice

19) What star is the last star on the Little Dipper constellation?

- a. Orion
- b. Europa
- c. Ursa Major
- d. Polaris (north star)

20) Why is the north star always pointing north

- a. The south pole points directly at it
- b. The north pole points directly at it
- c. It lines up perfectly with the equator all year round
- d. It sits directly over Selkirk

21) The unit of measure we use^{to} measure the distance between galaxies is

- a. Kilometers
- b. Light years
- c. Feet
- d. Astronomical Units

22) The unit of measure we use to measure the distance between planets in our solar system

- a. Kilometers
- b. Light years
- c. Feet
- d. Astronomical Units

23) How many kilometers is one Astronomical Unit?

- a. 150
- b. 100 million
- c. 150 million
- d. 100 billion

24) Define a light year

The distance light travels in a year

25) 4.0 AUs is equal to how many km?

- a. 45 million km
- b. 600 million km
- c. 765 million km
- d. 1380 million km

26) 10.2 AUs is equal to how many km?

- a. 45 million km
- b. 480 million km
- c. 765 million km
- d. 1,530 million km

27) 1.5 AUs is equal to how many km?

- a. 225 million km
- b. 480 million km
- c. 765 million km
- d. 1380 million km

28) 750 million km is equal to how many AUs?

- a. 5 AU
- b. 7 AU
- c. 5.8 AU
- d. 3.33 AU

29) 120 million km is equal to how many AUs?

- a. 0.8 AU
- b. 7 AU
- c. 5.8 AU
- d. 3.33 AU

30) 500 million km is equal to how many AUs?

- a. 0.8 AU
- b. 7 AU
- c. 5.8 AU
- d. 3.33 AU

31) The four terrestrial planets are

- a. Mars, Jupiter, Earth and Mercury
- b. Earth, Pluto, Mars and Venus
- c. Earth, Mercury, Venus and Mars
- d. Jupiter, Saturn, Neptune and Uranus

32) The Sun's mass mostly consists of which two elements?

- a. Hydrogen and Helium
- b. Hydrogen and Neon
- c. Helium and Neon
- d. Iron and Hydrogen

33) The four Jovial planets are

- a. Mars, Jupiter, Earth and Mercury
- b. Earth, Pluto, Mars and Venus
- c. Earth, Mercury, Venus and Mars
- d. Jupiter, Saturn, Neptune and Uranus

34) List the 8 planets in order starting with Mercury.

Mercury Venus Earth Mars Jupiter Saturn Uranus Neptune

My Very Educated Mother Just Served Us Nachos

35) What do planets need to orbit around to be considered a planet?

- a. Another planet
- b. A Moon
- c. A Star
- d. An Asteroid

36) Why is Venus considered Earth's twin planet?

Similar Size

37) List 3 characteristics that the four terrestrial planets share

- small size
- rocky material
- few moons
- solid surface
- no rings

38) What is the main reason Venus is our hottest planet?

- a. It is the closest planet to the sun
- b. It has a thick atmosphere full of carbon dioxide
- c. It has no atmosphere
- d. It is the largest planet

39) What is the largest planet in our solar system?

Jupiter

40) What is the smallest planet in our solar system?

Mercury

41) What is the only planet in the solar system that can sustain life?

Earth

42) What are 3 characteristics that all 4 Jovial planets share?

- large size

- many moons

- rings

- non solid surface

43) What planet has a red spot which is a giant storm that's been active for over 400 years?

- a. Saturn
- b. Earth
- c. Venus
- d. Jupiter

44) Which planet has an axis tilted to 98 degrees?

- a. Earth
- b. Mars
- c. Neptune
- d. Uranus

45) Please compare Meteoroids, Meteors and Meteorites. What makes them each different?

Meteoroids - in space

Meteors - In our Atmospheres

Meteorites - Found on Earth

46) What two forces work together to keep objects in orbit?

- a. Gravity and Inertia
- b. Gravity and Nuclear Fusion
- c. Friction and Centripetal force
- d. Pressure and Nuclear Fusion

47) Where are most of our solar system's asteroids found?

- a. Oort cloud
- b. Asteroid belt
- c. Orbiting Jupiter
- d. Orbiting Pluto

48) What was theorized to have impacted the earth 65 million years ago, causing the extinction of dinosaurs.

- a. Meteorite
- b. Comet
- c. Impact with another Mars size planet
- d. Asteroid

49) What is the main difference between a planet and a dwarf planet?

Dwarf Planets Aren't large enough to clear their own orbital path of debris and other celestial objects

50) Which of the following is considered a dwarf planet

- a. Jupiter
- b. The moon
- c. Europa
- d. Pluto

51) A shooting star is another name for a

- a. Meteor
- b. Asteroid
- c. Comet
- d. Meteoroid

52) Comets are primarily made up of

- a. Dust
- b. Ice
- c. Rock
- d. All of the above

53) How do we know that Halley's comet orbits the sun approximately every 76 years?

- a. We have a GPS tracker on it
- b. Humans have recorded its occurrence for hundreds of years
- c. Based on its mass
- d. Based on its composition

54) What is a Stellar Nebula made up of?

Hydrogen + Dust

55) During nuclear fusion, what element fuses together to produce helium?

Hydrogen + Hydrogen = Helium

56) In billions of years, the sun will die off and turn into a

- a. Red Super Giant
- b. Black Hole
- c. White Dwarf
- d. Neutron Star

57) Which element can be made in our sun?

- a. Gold
- b. Lithium
- c. Tin
- d. Silver

58) Why are we unable to see a blackhole? Please Explain

The gravity of a blackhole is so strong that not even light can escape it. We can't see it if there is no light.

59) What are the names of the two different object that may form at the end of a massive star's life cycle?

a. Neutron Star

b. Blackhole

60) Although Saturn and Jupiter contain much of same material that the sun contains, nuclear fusion does not occur. Why is this?

Saturn and Jupiter are not large enough to produce the pressure and temperature needed for Nuclear Fusion

61) Neutron stars have such a high pressure that _____ and _____ merge together forming Neutrons.

- a. Hydrogen and helium
- b. Protons and electrons
- c. Electrons and plasma
- d. Carbon and phosphorus