

Jupiter and Saturn emit _____ heat than absorbed from the sun due to _____

More; heat left over from their formation

Which of the following statements about the rings of the 4 jovian planets is not true

All probably look much like they did when the solar system first formed

What is a Roche zone

The region near a planet where tidal forces would tear apart an object held together only by gravity

Saturn is how far from the sun

10 AU

What mechanism is most responsible for generating the internal heat of IO that drives volcanic activity

Tidal heating

The belts and zones of Jupiter are

Alternating bands of rising and falling air at different latitudes

How thick are Saturn's rings from top to bottom

A few tens of metres

Which of the following does Jupiter not have

Crustal plates on its surface

All but one of the following statements about Mars are true. Which is false

The Martian atmosphere is fairly substantial with a composition similar to earth

Which of these moons is the most geologically active

Io

Mars is how far from the sun

1.5 AU

All but one of the following statements about Mercury are true. Which is false

Mercury has a very thin atmosphere which is strange because there are still active volcanoes outgassing carbon dioxide and water vapour

Why are there no impact craters on the surface of Io

Io did have impact craters but they have all been buried in lava flows

Mercury's Large core is composed of

Iron

We know about Earth's interior because of

Study of waves created by earthquakes

Why does Jupiter have several distinct cloud layers

Different layers represent clouds made of gases that condense at different temps

How have we been able to construct maps of surface features on the planet Venus

By using radar from spacecraft that were sent to orbit Venus

Which of the following objects contains mostly nitrogen with some methane

Titan

The orbit of Venus around the sun is almost circular. What is the radius of its orbit

0.72 AU

Earth's atmosphere contains only small amounts of Carbon dioxide because

It dissolves in water, and most of it is now in the oceans and carbonate rocks

All but one of the following statements about Mercury are true. Which one is false

Mercury's orbit around the sun is circular, more so than any other planet

All of the following statements about Jupiter are true, which is false

The great red spot is a large storm centre which has been observed for last 50 yrs

Planetary rings are

All of the above

A solar day on Mercury is about how long

176 Earth days

Why does Mars have more extreme seasons than Earth

Because it has a more eccentric orbit

What is the Cassini division of Saturn's rings

A large gap, visible from Earth, produced by an orbital resonance with moon Mimas

Why does the burning of fossil fuels increase the greenhouse effect on Earth

Burning releases carbon dioxide into the atmosphere

All but one of the statements about Earth is true. Which is false

The poles of the Earth's magnetic field are precisely aligned with Earth's rotational axis

In what ways is Earth different from other terrestrial planets

All of the above

What is the region around a planet called where the magnetic field is able to deflect solar wind and other charged particles

Magnetosphere

Why do astronomers believe Triton may have been a planet that was captured by Neptune

It orbits Neptune in the opposite direction of Neptune's rotation

The origin of Earth's only natural satellite, Moon is

A combination of the capture theory and the daughter theory called the impact theory which posits that early a young molten Earth collided with a Mars-like object

Which of the following statements about conjunctions and oppositions is false

Mars can have an inferior conjunction but not a superior conjunction from Earth's perspective

All of the following about Venus are true. Which one is false

The magnetic field has about the same intensity as on Earth; it appears to change directions every 100,000 years

There are no auroras on Venus because it

Lacks a strong magnetic field

Which of the following statements about Saturn is false

Saturn was first discovered by Galileo about 400 years ago

Which of the following is not a Kuiper Belt Object

Triton

Which of the following statements about Pluto is false

Pluto is one of the larger KBOs discovered to date and is actually bigger than Mercury

Which of the following statements about Charon, Pluto's moon are true except which one

As strange as it may seem, astronomers have actually observed seasonal effects on Charon

Which of the following statements about the moons of the Jovian planets is false

Io, one of the largest Jovian moons, has a wrinkly surface that is often referred to as "cantaloupe terrain"