

Name Key no partial credit these type questions Name _____
Sign _____ Print (bc I can't read your signatures) _____

Please show work for full credit and partial credit on all questions green

1. From the list of planets in our solar system circle all which are Terrestrial planets (8 pts, 1 pt each)

Jupiter Earth ~~Mercury~~ Neptune Venus Mars Uranus Saturn

2. Match the following by filling in the blank with the letter of your choices.(8 pts, 2 pts each)

inferior planet H Foucault Pendulum A Kepler's 2nd Law E AU D

- A. Used by astronomers to determine that the earth rotates on its axis at 15° per hour.
- B. Apparent motion between two fixed objects when the observer changes position. (can be used to prove that the earth revolves around the sun) (example: finger over distant object, move head)
- C. $T^2 = kR^3$ where T = time for one revolution of a planet around the sun and where R = average distance of the planet to the sun. This law allows astronomers to calculate time for one revolution of a planet around the sun for a known average distance of the planet to the sun.
- D. Astronomical Unit is the average distance between Earth and the Sun (1.5×10^8 km).
- E. A planet moves faster when it is closer to the sun in its elliptical path. (law of equal areas)
- F. A scientific model where the sun is the center of the solar system and planets revolve around the Sun.
- G. The fraction of incident sunlight reflected by an object. Measure of how reflective the surface of a planet or other object is.

H planet closer to sun than earth

3. Circle the one correct (parenthesis) within each [bracket]. (5 pts, 1 pt each)

- a. In our solar system [(the Sun) or (Jupiter)] is 99.87% of the mass of the solar system.
- b. All planets in the solar system [(rotate on its axis) or (are in orbit around the sun) or (all planets do both)].
- c. Jovian planets are [(closer to the Sun) or (further away from the Sun)] than the Earth.
- d. [(Mercury) or (Jupiter)] is the closest planet to the Sun.
- e. The planet [(Saturn) or (Mars)] has polar ice caps made up of frozen CO₂ and frozen water.

Extra Credit (4 pt,2 pt ea) Jovian planets are [(much larger) or (much smaller)] than the Terrestrial planets.

Jovian planets are mainly made up of [(gases like Helium and Hydrogen) or (hard minerals like iron oxide)]

Name Key No partial credit these type question Name _____
Sign _____ Print (bc I can't read your signatures)

Please show work for full credit and partial credit on all questions

1. From the list of planets in our solar system circle all which are Jovian planets (8 pts, 1 pt each)

Jupiter Earth Mercury Neptune Venus Mars Uranus Saturn

2. Match the following by filling in the blank with the letter of your choices. (8 pts, 2 pts each)

AU E Kepler's 2nd Law A Foucault Pendulum F inferior planet H

- A. A planet moves faster when it is closer to the sun in its elliptical path. (law of equal areas)
- B. $T^2 = kR^3$ where T = time for one revolution of a planet around the sun and where R = average distance of the planet to the sun. This law allows astronomers to calculate time for one revolution of a planet around the sun for a known average distance of the planet to the sun.
- C. A scientific model where the sun is the center of the solar system and planets revolve around the Sun.
- D. The fraction of incident sunlight reflected by an object. Measure of how reflective the surface of a planet or other object is.
- E. Astronomical Unit is the average distance between Earth and the Sun (1.5×10^8 km).
- F. Used by astronomers to determine that the earth rotates on its axis at 15° per hour.
- G. Apparent motion between two fixed objects when the observer changes position. (can be used to prove that the earth revolves around the sun) (example: finger over distant object, move head)

H planet closer to sun than earth

3. Circle the one correct (parenthesis) within each [bracket]. (5 pts, 1 pt each)

- a. In our solar system [(Jupiter) or (the Sun)] is 99.87% of the mass of the solar system.
- b. All planets in the solar system [(all planets do both) or (are in orbit around the sun) or (rotate on its axis)].
- c. Jovian planets are [(further away from the Sun) or (closer to the Sun)] than the Earth.
- d. [(Mercury) or (Jupiter)] is the closest planet to the Sun.
- e. The planet [(Saturn) or (Mars)] has polar ice caps made up of frozen CO₂ and frozen water.

Extra Credit (4 pt, 2 pt each)

Jovian planets are mainly made up of [(gases like Helium and Hydrogen) or (hard minerals like iron oxide)]

Jovian planets are in general [(much larger) or (much smaller)] than the Terrestrial planets.

Name key no partial credit these type questions Name _____
Sign _____ Print (bc I can't read your signatures)

Please show work for full credit and partial credit on all questions green

1. From the list of planets in our solar system circle all which are Jovian planets (8 pts, 1 pt each)

Venus Mars Uranus Saturn Jupiter Earth Mercury Neptune

2. Match the following by filling in the blank with the letter of your choices. (8 pts, 2 pts each)

albedo C Kepler's 3rd Law G Heliocentric Model B Parallax F

- A. Astronomical Unit is the average distance between Earth and the Sun (1.5×10^8 km).
- B. A scientific model where the sun is the center of the solar system and planets revolve around the Sun.
- C. The fraction of incident sunlight reflected by an object. Measure of how reflective the surface of a planet or other object is.
- D. A planet moves faster when it is closer to the sun in its elliptical path. (law of equal areas)
- E. Used by astronomers to determine that the earth rotates on its axis at 15° per hour.
- F. Apparent motion between two fixed objects when the observer changes position. (can be used to prove that the earth revolves around the sun) (example: finger over distant object, move head)
- G. $T^2 = kR^3$ where T = time for one revolution of a planet around the sun and where R = average distance of the planet to the sun. This law allows astronomers to calculate time for one revolution of a planet around the sun for a known average distance of the planet to the sun.

3. Circle the one correct (parenthesis) within each [bracket]. (5 pts, 1 pt each)

- a. Planets which are further away from the Sun than Earth are called [(superior planets) or (inferior planets)]
- b. Terrestrial planets are [(closer to the sun) or (further away from the sun)] than the Jovian planets.
- c. Aberration of Starlight which results because the earth revolves around the sun is similar to [(stars blinking) or (rain appearing to come at an angle because a car is moving)]
- d. [(Venus) or (Jupiter)] is the closest planet to earth.
- e. Unmanned spacecraft [(has never) or (has)] landed on Mars

Extra Credit (4 pts, 2 pts each)

Jovian planets are mainly made up of [(hard minerals like iron oxide) or (gases like Helium and Hydrogen)]

Jovian planets are in general [(much larger) or (much smaller)] than the Terrestrial planets.

Name _____

Name _____

Sign _____

Print (bc I can't read your signatures)

Please show work for full credit and partial credit on all questions

1. From the list of planets in our solar system circle all which are Terrestrial planets (8 pts, 1 pt each)

Venus

Mars

Uranus

Saturn

Jupiter

Earth

Mercury

Neptune

2. Match the following by filling in the blank with the letter of your choices. (8 pts, 2 pts each)

Kepler's 3rd Law

A

Heliocentric Model

F

albedo

G

Parallax

D

- A. $T^2 = kR^3$ where T = time for one revolution of a planet around the sun and where R = average distance of the planet to the sun. This law allows astronomers to calculate time for one revolution of a planet around the sun for a known average distance of the planet to the sun.
- B. A planet moves faster when it is closer to the sun in its elliptical path. (law of equal areas)
- C. Used by astronomers to determine that the earth rotates on its axis at 15° per hour.
- D. Apparent motion between two fixed objects when the observer changes position. (can be used to prove that the earth revolves around the sun) (example: finger over distant object, move head)
- E. Astronomical Unit is the average distance between Earth and the Sun (1.5×10^8 km).
- F. A scientific model where the sun is the center of the solar system and planets revolve around the Sun.
- G. The fraction of incident sunlight reflected by an object. Measure of how reflective the surface of a planet or other object is.

3. Circle the one correct (parenthesis) within each [bracket]. (5 pts, 1 pt each)

- a. Planets which are further away from the Sun than Earth are called [(inferior planets) or (superior planets)]
- b. Terrestrial planets are [(further away from the sun) or (closer to the sun)] than the Jovian planets.
- c. Aberration of Starlight which results because the earth revolves around the sun is similar to [(rain appearing to come at an angle because a car is moving) or (stars blinking)]
- d. [(Jupiter) or (Venus)] is the closest planet to earth.
- e. Unmanned spacecraft [(has) or (has never)] landed on Mars

Extra Credit (4 pts, 2 pts each)

Jovian planets are mainly made up of [(gases like Helium and Hydrogen) or (hard minerals like iron oxide)]

Jovian planets are in general [(much smaller) or (much larger)] than the Terrestrial planets.