

Is pluto a planet



When the International Astronomical Union announced that Pluto was no longer a planet people around the world were shocked. The 9 planets that they were used to knowing by the mnemonic code " My very elegant mother just served us nine pizzas" lost their pizza. Despite the fact that Pluto is a celestial object that orbits the sun, it cannot be considered a planet because of its inconsistency in orbit, its size, and the abundance of asteroids in the vicinity of its orbit.

Pluto does physically qualify as a planet. Being in a state of hydrostatic equilibrium meaning it has enough self gravity to pull itself into a round shape clearly distinguishes it and the other dwarf planets from shapeless asteroids. Pluto is the farthest planet from the sun and the smallest. Even though Pluto was discovered in 1930 not much is known about it , it is the only planet that a space craft has not landed on. Pluto mass is  $12.5 \times 10^{22}$  kg. Pluto has a rotation period of axis 6.387 days.

Pluto's placement in the Kuiper Belt is when the controversy started. This began the questioning if whether Pluto should be considered together with or separately from its surrounding population. Pluto lies in the Pluto-Charon system which is the largest of the solar system binary system. In August of 2006 the International Astronomical Union declared that Pluto is no longer a planet. Thereby downsizing the solar system to 8 planets. This vote by the IAU has sparked a lot of conservation of whether Pluto should be a planet or not.

Pluto meets two of the three requirements that have to be met in order to become planet. The first is that Pluto has to orbit the Sun which it does. Next

Pluto has to have enough gravity to pull itself into a spherical shape. Pluto meets the requirement. Last Pluto has to have cleared the neighborhood of its orbit. This is where Pluto doesn't meet the requirement. In September of 2006 the IAU included Pluto, Eris, and the Erudian moon Dysonmia in the minor planet system. This gives the official minor planet designations.

About 300 professional astronomers led by Dr. Alan Stern, Principal Investigator of NASA's New Horizons mission to Pluto, signed a formal petition saying they will not use the IAU definition to classify Pluto as not a planet. Many Scientist believe that Pluto is a planet and needs to be revised to distinguish that while there are two classes of planets those that dominate their orbits and those that do not both classes are still planets. Pluto remains a topic of study and research.

NASA has sent their New Horizons spacecraft to visit Pluto. New Horizons will arrive in Pluto in July 2015. I believe that Pluto should be a planet because in order to be a planet it must clear the neighborhood around its orbit. This true because if Neptune had cleared its neighborhood, the planet would not be there. The IAU believes that a planet to be any non-self-luminous spheroidal body which is orbiting around a star. If this is true our solar system should have 13 planets adding the planets Haumea, Makemake, Ceres and Eris.