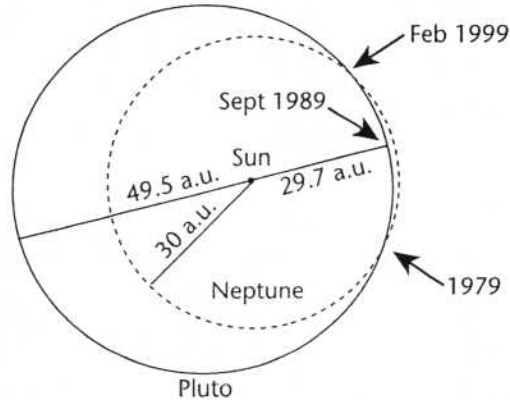


The Solar System ▪ *Enrich*

The Orbits of Neptune and Pluto - *Must be typed*

The orbit of Neptune is very close to circular. Pluto's orbit is more elliptical. The diagram below shows the orbits of Pluto and Neptune. The arrows show Pluto's position at different times. The unit of distance used in the diagram is the *astronomical unit*, or a.u. An a.u. is the average distance from Earth to the sun, about 150 million kilometers. Neptune's distance from the sun is about 30 astronomical units, or 4,495 million kilometers.



Answer the following questions. *Must be typed.*

1. In 1989, Pluto was as close to the sun as it ever gets. How close was it?

2. What was Neptune's distance from the sun in 1989?

3. Pluto takes 248 years to complete one revolution around the sun. When will Pluto and Neptune next be an equal distance from the sun?

4. When will Pluto next be as far from the sun as it ever gets?

5. Is one planet farther than the other from the sun now? If so, which one?

The Solar System