



Activity 3: Student Worksheet

The Capacity of The Planets

We like to think the Earth is huge, but it's actually one of the shrimpier planets in our solar system. Did you know that Saturn's about ten times as big around as our home planet?

For this activity, use the chart of facts below, formulas for capacity and area, and a calculator.

PLANET	Approximate diameter (in miles)	Approximate distance from the Sun (in miles)
Mercury	3,030	36,300,000
Venus	7,520	67,200,000
Earth	7,930	93,000,000
Mars	4,220	142,000,000
Jupiter	88,900	484,000,000
Saturn	74,900	888,000,000
Uranus	31,800	1,780,000,000
Neptune	30,800	2,800,000,000
Pluto	1,450	3,670,000,000

1. Change each number in the chart to scientific notation.
2. Use the answers from #1 to compute the distance from Pluto to the Earth. Show all of your work.

3. How much farther is Neptune from Mercury than Uranus?
4. How many Earths can fit into Jupiter? Show all of your work.
5. If $\frac{3}{4}$ of the Earth's surface is water, about how much of Pluto's surface can be covered with Earth's water?
6. Create a distance or capacity problem of your own using the data in the chart.