



# Size it Up

## Relative Size

ASTRONOMER



Relative size can be determined in much the same way as relative distance. Give the diameter of earth a value of 1. By creating a ratio, you can obtain the relative size diameter for each planet in the solar system. You can then use that relative size to make your own solar system model by setting up a ratio for each of the planets. Here is a sample using Mercury:



$$\frac{\text{MERCURY'S DIAMETER} : 4880}{\text{EARTH'S DIAMETER} : 12,756} = \frac{1}{N}$$

Cross multiply and you get the equation  $4880 = 12,756N$ . By dividing both sides by 12,756 you obtain the relative diameter for Mercury. Complete the chart below for all the planets.

Planet	Diameter	$\div$ (EARTH'S DIAMETER) 12,756	= Relative Diameter
Mercury		$\div$ 12,756	=
Venus		$\div$ 12,756	=
Earth	12,756	$\div$ 12,756	= 1
Mars		$\div$ 12,756	=
Jupiter		$\div$ 12,756	=
Saturn		$\div$ 12,756	=
Uranus		$\div$ 12,756	=
Neptune		$\div$ 12,756	=
Pluto		$\div$ 12,756	=