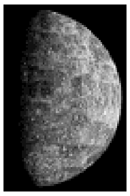
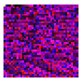
Mercury

Planet Profile

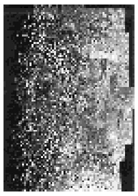
Mass (kg)	3.3 x 10^23
Diameter (km)	4878
Mean density (kg/m^3)	5420
Escape velocity (m/sec)	4300
Average distance from Sun (AU)	0.387
Rotation period (length of day in Earth days)	58.65
Revolution period (length of year in Earth days)	87.97
Obliquity (tilt of axis in degrees)	0
Orbit inclination (degrees)	7
Orbit eccentricity (deviation from circular)	0.206
Mean surface temperature (K)	452
Maximum surface temperature (K)	700
Minimum surface temperature (K)	100
Visual geometric albedo (reflectivity)	0.12
Largest known surface feature	Caloris Basin (1350 km diameter)
Atmospheric components	trace amounts of hydrogen and helium





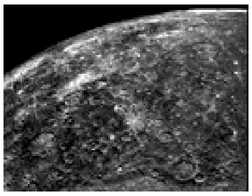
Mosaic of Mercury

This photomosaic of the planet Mercury was assembled from individual high-resolution images taken by Mariner 10 shortly before closest approach in 1974. The sun is shining from the right, and the terminator is at about 100 degrees west longitude. Crater Kuiper, named after astronomer Gerard P. Kuiper, can be seen just below the center of the planet’s illuminated side. The landscape is dominated by large craters and basins with extensive plains between craters.



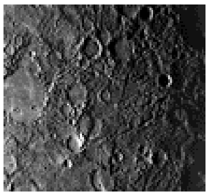
Caloris Basin

Seen here is part of the enormous Caloris Basin, which is thought to be similar to the large circular basins found on the moon. Probably formed by a giant impact early in Mercury's history, this basin was subsequently filled by lava flows. The nature of the wrinkle ridges on its floor is arguable: some scientists claim tectonics while others suggest they are due to volcanic flows escaping from fractures.



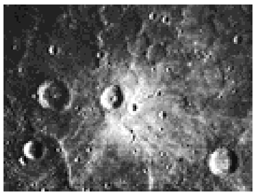
Southwest Mercury

The southwest quadrant of Mercury is seen in this image taken March 29, 1974, by the Mariner 10 spacecraft. The picture was taken four hours before the time of closest approach when Mariner was 198,000 km (122,760 mi) from the planet. The largest craters seen in this picture are about 100 km (62 mi) in diameter.



Hills of Mercury

"Weird terrain" best describes this hilly, lineated region of Mercury. Scientists note that this area is at the antipodal point to the large Caloris basin. The shock wave produced by the Caloris impact may have been reflected and focused to the antipodal point, thus jumbling the crust and breaking it into a series of complex blocks. The area covered is about 800 km (497 mi) on a side.



Mercury Close Up

The small, bright halo crater (center) is 10 km (6 mi) in diameter. The prominent crater further left, which has a central peak, is 30 km (19 mi) across. The darker, lightly cratered area (upper left) may be an ancient lava flow. Mercury's surface is similar to that of Earth's moon, where a history of heavy cratering is followed by volcanic filling.

 *Welcome to the Planets Home Page*