



Moon Fact Sheet

Bulk Parameters

	Moon	Ratio (Moon/Earth)
Mass (kg)	0.07349×10^{24}	0.0123
Volume (km ³)	2.1968×10^{10}	0.0203
Volumetric mean radius (km)	1737.4	0.2727
Mean density (kg/m ³)	3340	0.605
Surface gravity (m/s ²)	1.62	0.166
Escape velocity (km/s)	2.38	0.213
Visual geometric albedo	0.12	0.327
Solar irradiance (W/m ²)	1367.6	1.000
Topographic range (km)	16	0.800

Orbital Parameters (for orbit about the Earth)

Mean orbital distance (km)	0.3844×10^6
Revolution period (days)	27.3217
Synodic period (days)	29.53
[time between new moons]	
Mean orbital velocity (km/s)	1.023
Orbit inclination (deg)	5.145
Orbit eccentricity	0.0549
Sidereal rotation period (hrs)	655.728
Recession rate from Earth (cm/yr)	3.8

Lunar Atmosphere

Diurnal temperature range (K)	> 100 to < 400
Total mass of atmosphere (kg)	~ 25,000
Surface pressure - night (bar)	3×10^{-15}
Estimated composition - night (particles per cm ³)	⁴ He - 40,000; ²⁰ Ne - 40,000; H ₂ - 35,000; ⁴⁰ Ar - 30,000; ²² Ne - 5,000; ³⁶ Ar - 2,000; CH ₄ - 1000; NH ₃ - 1000; CO ₂ - 1000 Trace O ⁺ , Al ⁺ , Si ⁺ Possible P ⁺ , Na ⁺ , Mg ⁺