

Orbital velocity

$$v = \frac{2\pi R}{t}$$

$$v = \frac{2\pi \times 0.125 \times 149,597,871}{18.88 \times 24 \times 3600}$$

$$v = 72.028 \text{ [km.s}^{-1}\text{]}$$

Surface gravity

$$g = \frac{GM}{R^2}$$

$$g = \frac{6.6743 \times 10^{-11} \times 9.70 \times 5.9722 \times 10^{24}}{(2.45 \times 6,378,000)^2}$$

$$g = 15.83 \text{ [m.s}^{-2}\text{]}$$