$$F = \frac{G m_e m_s}{d^2} = \frac{3.439\left(10^{-8}\right)(1)(333,000)\left(4.095 \cdot 10^{23}\right)^2}{\left(92.96 \cdot 10^6 \cdot 5280\right)^2}$$

$$= 7.97\left(10^{21}\right) \text{ lb}$$

$$F = 7.97\left(10^{21}\right) \text{ lb} \left(\frac{4.4482 \text{ N}}{\text{lb}}\right) = 3.55\left(10^{22}\right) \text{ N}$$