5. The gravitational force of attraction can be calculated using Newton's Law of Universal Gravitation, because the masses and the distance between their centers are given.

$$F = G\ m_1\ m_2\ /\ r^2$$

$$F = (6.67\ \text{x}\ 10^{-11}\ \text{N m}^2\ /\ \text{kg}^2)\ (60\ \text{kg})\ (10{,}000\ \text{kg})\ /\ (5\ \text{m})^2$$

$$F = 1.6\ \text{x}\ 10^{-6}\ \text{N} = 0.0000016\ \text{N} = 0.00000036\ \text{lb}$$

This is a very small force, which explains why you do not veer toward a large building whenever you pass by one.