67. Since $\omega = 2\pi f$ where $f = 2.2$ Hz, we find that the angular frequency is $\omega = 13.8$ rad/s. Thus, with $x = 0.010$ m, the acceleration amplitude is $a_m = x_m\omega^2 = 1.91\,\mathrm{m/s^2}$. We set up a ratio:

$$a_m = \left(\frac{a_m}{g}\right) g = \left(\frac{1.91}{9.8}\right) g = 0.19g \ .$$