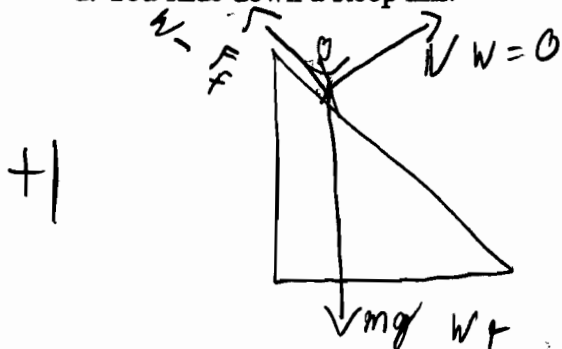


d. You slide down a steep hill.

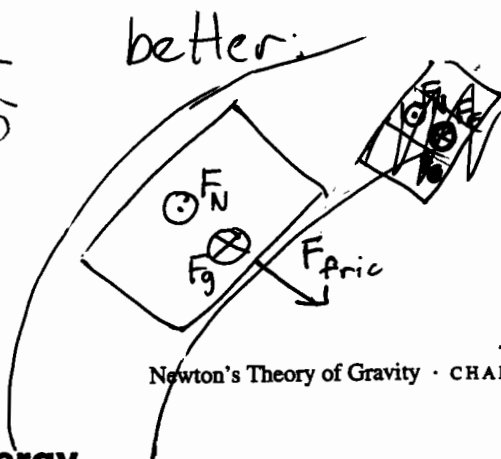
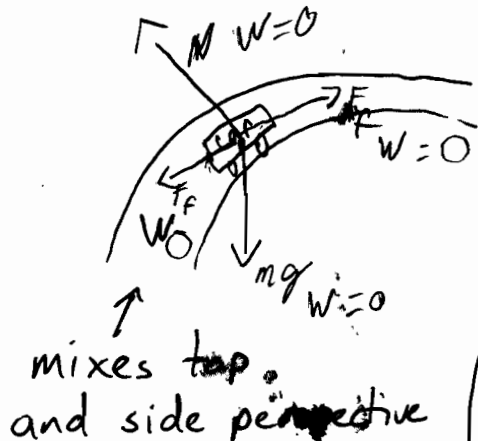


e. A ball is thrown straight up. Consider the ball from one microsecond after it leaves your hand until the highest point of its trajectory.



Good

f. A car turns a corner at constant speed.



12.5 Gravitational Potential Energy

7. Explain why the gravitational potential energy of two masses is negative. Note that saying "because that's what the formula gives" is *not* an explanation. An explanation makes use of the basic ideas of force and potential energy.

+1/2
$$U_g = - \frac{G m_1 m_2}{r}$$

This is because when two masses move towards each other due to gravity, they go from 0 to + KE. Therefore potential energy had to be negative.