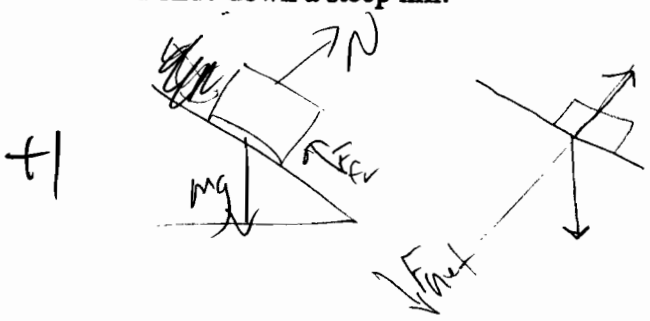
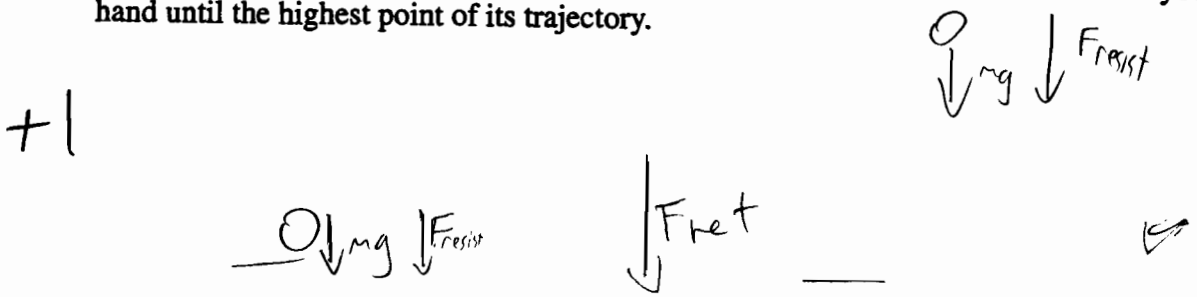
d. You slide down a steep hill.



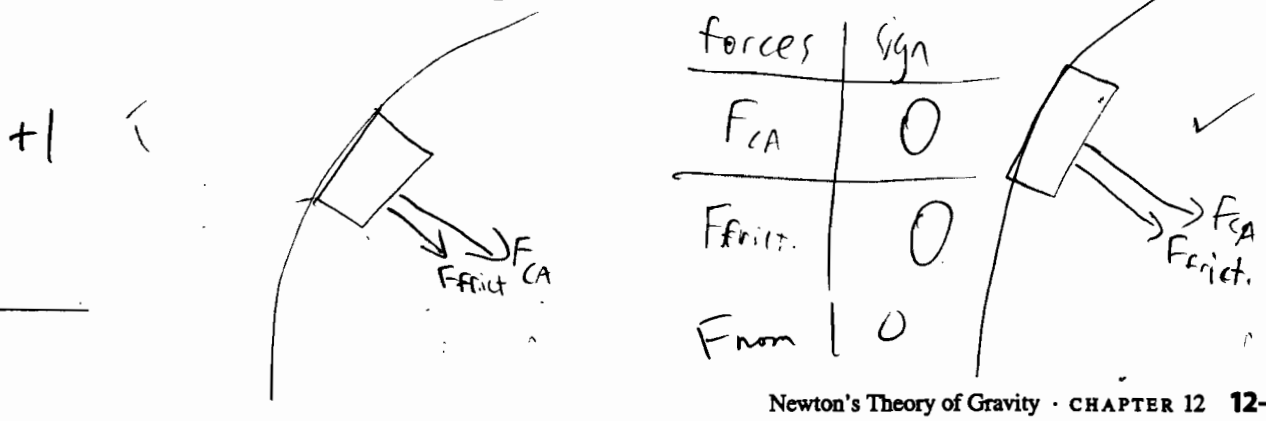
Force	sign
mg	+
N	∅
F_{fr}	+

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.



Force	Sign
mg	−
Fresist	+

f. A car turns a corner at constant speed.



forces	Sign
F_{CA}	0
$F_{frict.}$	0
Fnet	0

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.

~~It would~~ You have to put in energy to make the gravitational potential energy = ∅ as in an astronaut going to space where you have to use energy to get away from Earth's gravitational energy