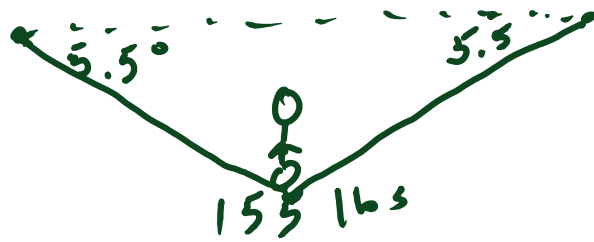# Page 517: 16, 18, 22, Extra

16. What would be the force required to push a 100-pound object along a ramp that is inclined 10° with the horizontal? *At least 17.4 lbs*

18. To keep a 75-pound block from sliding down an incline, a 52.1-pound force is exerted on the block along the incline. Find the angle that the incline makes with the horizontal. *44°*

22. An object is placed on a ramp and slides to the ground. If the ramp makes an angle of 40° with the ground and the object weighs 25 pounds, find the acceleration of the object. Assume that there is no friction. *20.6 ft/sec²*

Extra:

5.5°   *5.5°*

155 lbs

808 lbs.