

16. **Calculate** the value of F_f for the friction block, with no added masses, if the inclined plane was at an angle of 45° , and side A, the large, wooden side, was in contact with the inclined plane. (HINT: Consider the normal force in Part 1 and Part 3. The only thing that has changed is the angle between the inclined plane and the horizontal.) **Show your work. No work, no credit.**

Edited by E. Smith 06/01/15
Prepared by B. Ballard 6/28/01
Edited by B. Ballard 06/01/14

PART 3:

13. **State** whether your data in Table 12.2 do or do not support the hypothesis that the friction force, F_f , depends on the normal force, F_N . **State** how you know. **No explanation, no credit.** (HINT: Don't worry about the nature of the relationship—just determine if there is or is not some dependence of F_f on F_N .)
14. **State** whether your data in Table 12.2 do or do not support the hypothesis that the friction force, F_f , depends on the materials in contact. **State** how you know. **No explanation, no credit.** (HINT: Don't worry about the nature of the relationship—just determine if there is or is not some dependence of F_f on material.)
15. **State** whether your results from Part 3 do or do not agree with the hypothesis that the friction force, F_f , depends on the contact area. **State** how you know. **No explanation, no credit.** (HINT: Don't worry about the nature of the relationship—just determine if there is or is not some dependence of F_f on area.) Is this the relationship you would have predicted in advance?