

**Project 4**  
**Can You Save Tom's Marriage?**  
**What to Hand In**

1. Write an email to Tom, telling him the formula and how to use it. Tom is a curious guy and will want to know how you got the formula, but he's not a mathematician, in fact, he's a psychologist. In your email, explain, in terms Tom can understand, where the formula comes from. This means that you should not necessarily include all of your work in your email, unless your work is simple. Your goal is to make Tom work as little as possible to: (a) be able to use the formula; and (b) understand where it comes from. The point of this exercise is to practice communicating with nonmathematicians - a skill every applied mathematician needs.
2. We first saw Tom's problem when we talked about trade-off problems during the January workshop (see *Section 1 - Linear Functions* in the lecture notes). What trade-off is involved here?
3. How is Tom's problem more complicated than the other trade-off problems we did during the workshop?
4. Make up a problem (or two) that has some (or all) of the aspects that Tom's problem does. Explain how your problem is like Tom's. Also explain how your problem is different from Tom's, if it is.

*Remark:* Please do not hand in work other than what is asked for in 1 through 4.

**Announcing.... A Competition!**

I will send on the best 4 or 5 emails to Tom and he will pick the one he likes best. The author of the winning email will receive a prize! Let me know if you do not want to participate in this exciting competition.