Sarah is finally completing her Ph.D. in mathematics. She is looking for a job and making plans for life beyond graduate school. Her advisor and committee are happy with her thesis work, and she has spent the last three months finalizing her dissertation. Her work has three main results: theorem 1, theorem 2 and theorem 3. She discovers, to her horror, that the assumptions in theorem 1 and theorem 2 are slightly different (at least in how she could prove them), but that theorem 3 (which relies on the other two) is built on a combination of assumptions that are incompatible. This difficulty is very subtle, she and her advisor have gone over this a million times, and it is very unlikely any one will ever trace through these theorems carefully enough to find this. But the more she looks into this, the more she is convinced that her thesis needs more work. If she brings this up to her advisor, it may still be possible fix it and graduate this year, but it could also mean another year in graduate school living below the poverty line. What should she do?

- 1. Just ignore it and never think of it again.
- 2. Wait until after graduation and then look into it.
- 3. Spend a little time and see how big of a problem it is, then decide what to do.
- 4. Tell her advisor asap. Maybe they can fix it together quickly.
- 5. Fix it with words! Write a vague note in the thesis that notes the slight differences in assumptions, and gloss over the significance.
- 6. Other?