

Due March 7

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Name

For this homework set you are allowed to work with other members of either of the geometry classes. However, must cite everyone with whom you have discussed your problem.

In addition, you may **NOT** consult with anyone (except me) when you write your paper explaining your problem(s).

*"I hate definitions".* – Benjamin Disraeli, **Vivian Grey** (1826)

*"I never know how much of what I say is true."* — Bette Midler

### Problems

Remember that you may use any previous problem as part of the justification for your problem(s).

1. (**Amy**) Prove Proposition 3.13 (*a*) and Proposition 3.21 (*a*). (Re. Exercises 21 and 31)
2. (**Noa**) Prove Propositions 3.13 (*b* and *c*) and Propositions 3.21 (*b* and *c*) (Re. Exercises 22 and 31)
3. (**Lindsey, Letani**) Prove Proposition 3.13 (*d*) and Proposition 3.21 (*d*). (Re. Exercises 23 and 31)
4. (**Luke**) Prove Proposition 3.15. (Re. Exercise 25)
5. (**Noa**) Prove Proposition 3.18. (Re. Exercise 27)
6. (**Lindsey**) Do exercise 28.
7. (**Amy, Luke**) Prove Proposition 3.20. (Re. Exercise 29)
8. (**Letani**) Do exercise 30.
9. (**Everyone**) Do the portions of exercise 35 that show SAS and SSS to fail.