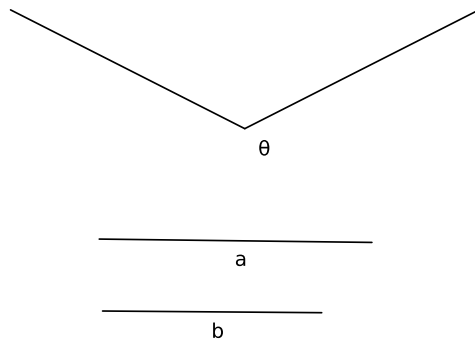


Math 1166: Homework 4
Due: Tuesday, February 5th

- 1) Given any triangle, explain why the angle bisectors will always meet at a single point.
- 2) Construct a triangle given one angle θ , and the lengths of the altitudes to the two other angles, a and b below. Describe the steps in your construction and explain why the construction works.



3) You are on a boat at night. You can see three lighthouses, and you know their position on a map. Also you know the angles of the light rays from the lighthouses. How do you figure out where you are? Explain your work.

