Homework 4 due Friday 2/18

1. (20 points) Let G be $\mathbb{R}^2$, the usual Euclidean plane with usual points, lines and incidence rule. We now say A lies between B and C if either

   (a) A, B, C lie on a non–vertical line and A is to the left of B *and* C, or

   (b) A, B, C lie on a vertical line, and A is below B *and* C.

   Which of the four betweenness axioms hold? Your arguments can be informal.

2. p. 104, problem 1 (15 points)

3. (10 points) Give an example of a model for the incidence axioms where Betweenness Axioms 1 and 3 hold, but axiom 2 does not hold.

4. p. 104, problem 3 (15 points)

5. p. 105, problem 8 (10 points)