

**Assignment #2**  
**Due Tuesday, July 16**

1. For the axioms at the beginning Section 4.3 of my notes:
  - (a) Show that the system is consistent by finding a model.
  - (b) Show that the system is independent.
2. For each model of Sections 5.3.2–5.3.5 of my notes
  - (a) Does the model satisfy Axiom I-1?
  - (b) Does the model satisfy Axiom P-1?
3. Exercise 4.5.3 of my notes.
4. Exercise 4.5.4 of my notes.
5. Exercise 5.2.2 of my notes.
6. Find a general equation  $ax + by + c = 0$  for the line containing two distinct points  $(x_1, y_1)$  and  $(x_2, y_2)$ .