

Not To Be Turned In

 Name

Remember, you are not to discuss these problems with anyone with three exceptions: (1) discussions with me are allowed, (2) you may use any information that comes to light during a Brainstorming session and (3) if the directions to the problem specifies you may work with others.

“It is by logic that we prove but by intuition that we discover.” (Henri Poincaré)

Problems

You no longer need to turn in any of these problems.

You should work together and be sure that you know how to do all of them since this material will be covered on the examination.

- Be ready to answer the Review Exercise Questions in Chapter 2.

1. Do the problem(s) in the following list that are in the same column of the table below as your name.

- Carefully show the interpretation in Example 3 of the text is a model of Incidence geometry. Further, show this model satisfies the Euclidean parallel property.
- Carefully show the interpretation in Example 4 of the text is a model of Incidence geometry. Further, show this model satisfies the hyperbolic parallel property.
- Construct an interpretation of Incidence geometry in which Incidence Axioms 1 and 2 hold but 3 fails. Explain why problems II.3, II.4 and II.5 together show that it is impossible to prove any of the three axioms using only the other two. Then explain why each axiom is independent of the other two.
- Construct an interpretation of Incidence geometry in which Incidence Axioms 2 and 3 hold but 1 fails. Explain why problems II.3, II.4 and II.5 together show that it is impossible to prove any of the three axioms using only the other two. Then explain why each axiom is independent of the other two.
- Construct an interpretation of Incidence geometry in which Incidence Axioms 1 and 3 hold but 2 fails. Explain why problems II.3, II.4 and II.5 together show that it is impossible to prove any of the three axioms using only the other two. Then explain why each axiom is independent of the other two.

2. Do the exercises from Chapter 2 of the text that are in the same column as your name.

Greg	James	Oscar	Peter	Dakota
Chris M	Kyle	Joe	Clay	Nathan
Caitlin	Chris L	Billy	Matt	Wilson
1.c	1.d	1.e	1.c	1.d
Text 13(affine only)	Text 14	Text 10	Text 10	Text 13 (affine only)
Text 11	Text 11	Text 11	Text 11	Text 11