Due February 4

<div style="text-align:right">_____
Name</div>

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.

"No, no, you're not thinking, you're just being logical." -Niels Bohr, physicist (1885-1962)

Problems

1. [Not to be turned in.] Be able to answer the review questions on pages 41 and 42. [You may work with others on this problem.]

2. Give careful definitions of the **two** geometric terms or phrases from textbook Exercises $1, 2$, and 3 that are in the same column of the table below as your name.

3. Do the construction problems from Exercises 14 and 15 that are in the same column of the table below as your name. Provide Euclidean justifications for each of your constructive steps. For this assignment you may use any results from Euclidean geometry as well as previous constructions to justify your steps. Try to do all problems using a collapsible compass and straightedge.

4. Develop a truth table for the logical statements (below) that are in the same column as your name in the table. Give a brief verbal explanation of what the logical statement means.

    (a) $(p \vee q) \Longleftrightarrow (\sim p) \wedge (\sim q)$

    (b) $(p \Longrightarrow q) \Longleftrightarrow ((\sim q) \Longrightarrow (\sim p))$

    (c) $(p \Longrightarrow q) \Longleftrightarrow ((\sim p) \vee q)$

    (d) $\sim [H \Rightarrow C] \Longleftrightarrow (H \wedge \sim C)$

    (e) $(P \wedge (P \Rightarrow Q)) \Rightarrow Q$

    (f) $((P \wedge \sim Q) \Rightarrow (R \wedge \sim R)) \Rightarrow (P \Rightarrow Q)$

Elizabeth B	Lauren F	Will G	Teddi H	Jennifer M
Evan P	Jason P	Abbey P	Peter R	
Text 1.a	Text 1.b	Text 1.c	Text 1.d	Text 1.e
Text 2.d	Text 2.e	Text 2.f	Text 2.g	Text 2.h
Text 14.g	Text 14.f	Text 14.e	Text 14.d	Text 14.g
Text 15.b	Text 15.b	Text 15.b	Text 15.b	Text 15.b
TT 4.d	TT 4.e	TT 4.f	TT 4.c	TT 4.b