

New Concepts

- Conditional Statements
- Converse
- Biconditional Statement
- Properties of Equality

Problem Set #6

“One geometry cannot be more true than another; it can only be more convenient”

- Henri Poincare

New Postulates and Theorems

Exercises:

p.35 #3-11 odd, 12-16, 21-31

p.41 #6,7,9-11

Problems:

6-1 Not My Dog

A family has a set of fraternal twins and a dog. Their names are Alex, Maggie, and Sam. Determine from the clues below who is whom!

- If Sam is my dog, then Maggie is the older twin.
- If Maggie is not my dog, then Alex is the older twin.
- If Sam is the older twin, then Maggie is the younger twin.

6-2 Which Bottle (Moves You Ahead)?

*Danger lies before you, while safety lies behind,
Two of us will help you, whichever you would find,
One among us seven will let you move ahead,
Another will transport the drinker back instead,
Two among our number hold only nettle wine,
Three of us are killers, waiting hidden in line.
Choose, unless you wish to stay here forevermore,
To help you in your choice, we give you these clues four:*

*First, however slyly the poison tries to hide
You will always find some on nettle wine's left side;
Second, different are those who stand at either end,
But if you would move onward, neither is your friend;
Third, as you see clearly, all are different size,
Neither dwarf nor giant holds death in their insides;
Fourth, the second left and second on the right
Are twins once you taste them, though different at first sight.*
(Rowling 1998, p. 285)

