Syllogistic Logic and Venn Diagrams

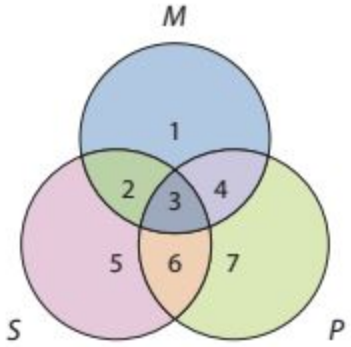
Syllogisms are slightly more complex than single premise arguments. They are arguments with two premises, where the first premise is the *major* premise, the second premise is the minor premise, and both are followed by the conclusion.

Major premise: is the premise that contains the major term.
Major term: the predicate of the conclusion

Middle term: the term that occurs once in each premise but does not occur in the conclusion

Minor premise: the premise that contains the minor term
Minor term: the subject of the conclusion

Given that we are now dealing with two-premise arguments, the associated Venn diagrams for the arguments is more complicated. I will follow Hurley's method for organizing the three circled diagram (see pages 272 - 273).



The following table explains the different extensions represented by the different sections:

Region Number	S - minor term	P - major term	M - middle term
1	No	No	Yes
2	Yes	No	Yes
3	Yes	Yes	Yes
4	No	Yes	Yes
5	Yes	No	No
6	Yes	Yes	No
7	No	Yes	No

The actual mechanics of filling three-circle Venn diagrams is nearly identical to the filling of the two-circle diagrams we looked at last week. One thing to remember is when filling in the three-circled diagrams, always start with the universal premise(s). Then, if there are any, fill in the particular premise. Doing this helps limit where Xs can go for the particular.

Sadly, the easiest way to both understand the process of creating three-circle Venn diagrams and to explain it is to do a lot of them. The following website has some animations to help visualize the three-circle diagram being composed of the diagrams for each premise: http://www.butte.edu/resources/interim/wmwu//iLogic/2.5/iLogic_2_5.html

I would also recommend going through pages 275 - 282 and diagramming each argument without looking at how Hurley has done it, and then check you answer against Hurley's. Practice makes perfect!