CRITICAL THINKING

Workshop #11: Assessing Categorical Syllogisms

Part I: Each of the following problems presents a categorical syllogism in standard symbolic form. For each, use the Venn diagram method to determine whether it is a valid or invalid argument.

In particular, for each of the following syllogisms, (1) create a Venn diagram of the premises, (2) create a Venn diagram of the conclusion; and (3) use those two Venn diagrams to explain whether the syllogism is valid or invalid. It is now possible that *P*, *S*, and *M* are empty. These should be fairly straightforward.

1. 1. No *P* is *M*.
   2. All *S* is *M*.
   ∴ No *S* is *P*.

2. 1. Some *M* is not *P*.
   2. Some *S* is *M*.
   ∴ Some *S* is *P*.

3. 1. No *P* is *M*.
   2. Some *M* is *S*.
   ∴ Some *S* is not *P*.

Please continue ▶

Workshop #11: Assessing Categorical Syllogisms (Continued)

Part II: Each of the following problems presents a categorical syllogism. For each, use the Venn diagram method to determine whether it is a valid or invalid argument.

In particular, for each of the following syllogisms, (1) identify the major term (P), the minor term (S), and the middle term (M); (2) put the syllogism into standard symbolic form; (3) create a Venn diagram of the premises, (4) create a Venn diagram of the conclusion; and (5) use those two Venn diagrams to explain whether the syllogism is valid or invalid. It is now possible that *P*, *S*, and *M* are empty. Some of these may require a little more thought.

1. Some enterprising entrepreneurs are not empathic people, for all gifted and thoughtful problem solvers are enterprising entrepreneurs, and some gifted and thoughtful problem solvers are not empathic people.

2. All roses are flowers, and some flowers fade quickly. Therefore, some roses fade quickly.

You're done!