Homework for Lesson 3: Categorical Logic 1.0

Assessing Categorical Arguments for Validity: Intuitive Method Edition
Indicate whether the following arguments are valid or invalid. Use the Imagination Method.

1. All philosophers are lovers of truth. No lovers of truth are closed-minded people. Thus, no philosophers are closed-minded people.
2. No soldiers are rich. No rich persons are poets. Hence, no soldiers are poets.
3. No scientists are poets. Some scientists are logicians. Therefore, some logicians are not poets.
4. Some actors are sculptors. Some poets are not actors. So, some poets are not sculptors.

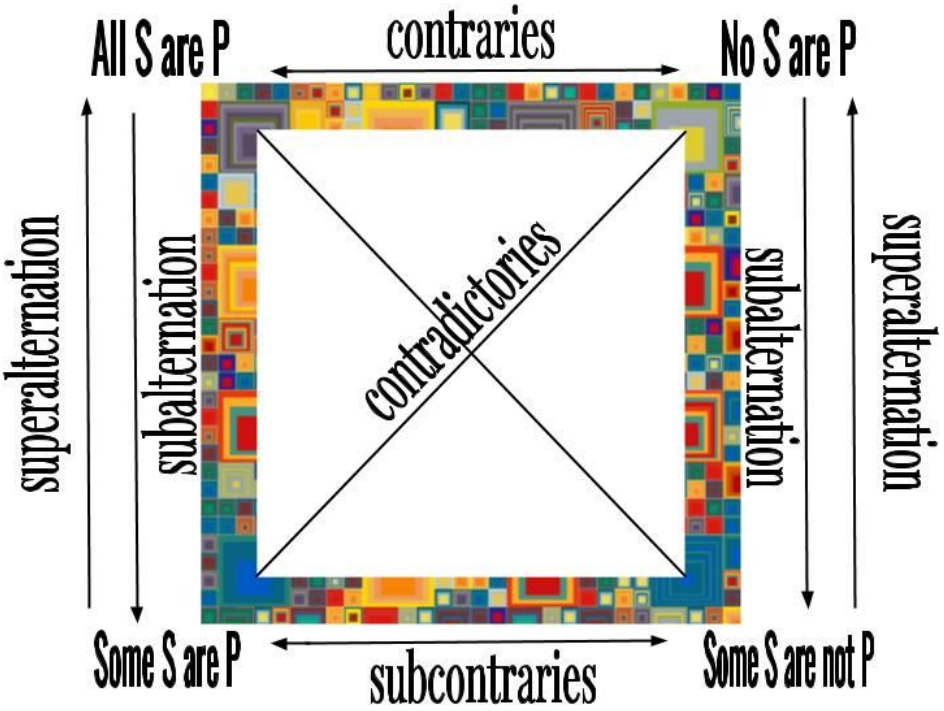
Complete the following arguments in such a way such that each is valid:

1. All cats are _____.
2. Some _____ are pets.
3. So, some _____ are _____.

1. All _____ are _____.
2. No mammals are _____.
3. So, no _____ are _____.

Lastly, memorize the following terms, as well as the Square of Opposition diagram below:

- Two statements are contradictories if and only if they cannot both be true simultaneously and they also cannot both be false simultaneously.
- Two statements are contraries if and only if they cannot both be true simultaneously, but it is logically possible that both are false.
- Two statements are subcontraries if and only if they cannot both be false simultaneously but it is logically possible that both are true.
- One statement P is a subaltern of another statement Q if and only if P must be true if Q is true.
- One statement P is a superaltern of another statement Q if and only if P must be false if Q is false.


All S are P
contraries
No S are P
superalternation
subalternation
contradictories
subalternation
superalternation
Some S are P
subcontraries
Some S are not P