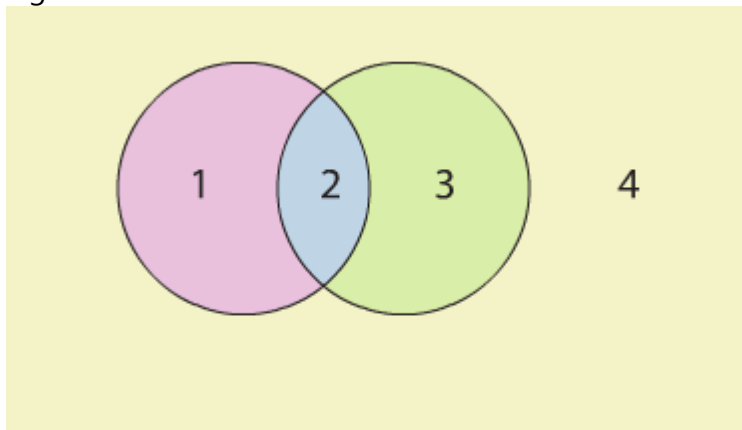


## Venn Diagrams:

There is a way to diagram all four kinds of categorical propositions using two circles. One circle represents the **subject class**, and the other represents the **predicate class**.

Imagine that our **subject class = kittens**, and that our **predicate class = cute**. Below, the mostly pink circle represents the subject class (kittens), so that circle has ONLY kittens in it. Meanwhile, the mostly green circle represents the predicate class (cute things), so that circle has ONLY cute things in it. Finally, the blue-ish place where the two circles overlap (region 2) represents the place where individuals are members of BOTH the subject class AND the predicate class—so region 2 has ONLY cute kittens in it.



Here is what each of the numbered regions would have in them:

- 1) Region 1 (pink): Kittens that are not cute.
- 2) Region 2 (blue): Cute kittens.
- 3) Region 3 (green): Cute things that are not kittens.
- 4) Region 4 (tan): Things that are neither cute nor kittens.

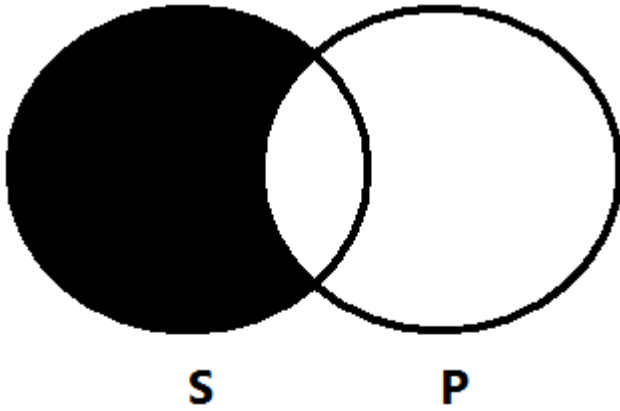
**How we will mark Venn diagrams:** In this class, a SHADED region will represent a region which has NO members in it. For instance, if there are no such things as **kittens that are not cute**—and let's face it, there probably aren't—then we would **shade** in region 1 to represent the fact that it is empty.

Additionally, an 'X' will represent the fact that there is at least ONE individual in a region. Is there at least one individual that exists in region 3 (cute things that are NOT kittens)? Well, let's brainstorm: Can you think of any **cute things that are NOT kittens**. IF YES, then we would mark region 3 (the green region) with an '**X**' to represent the fact that there is something in it.

With that in mind, we would mark the four kinds of categorical proposition as follows:

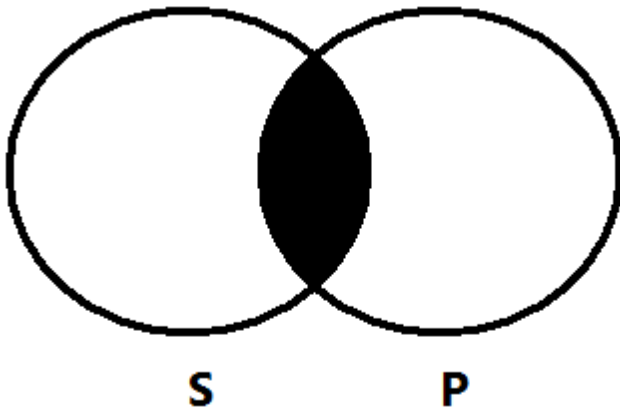
### **(A) All S are P.**

Since all of the S's are P's, there are no S's outside of the P-circle. So, we shade that region to indicate that nothing exists there.



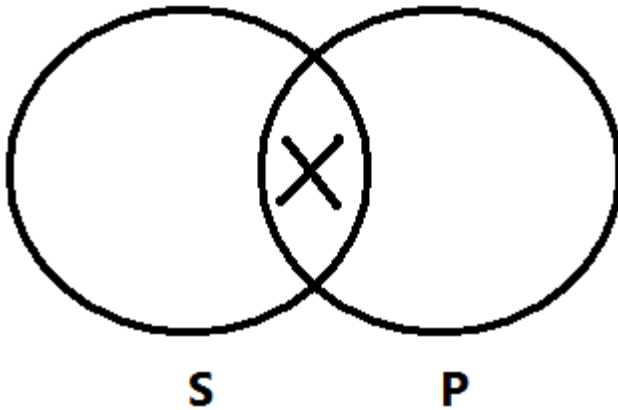
**(E) No S are P.**

This statement tells us that there are no S's that are also P's. So, we shade in the overlapping region to represent the fact that nothing exists there. But, once again, universal statements do NOT imply that something DOES exist, so we cannot draw an 'X' in any of the unshaded regions.



### (I) Some S are P.

Particular statements (with the word 'some' as the quantifier) DO have existential import. So, we DO know that some S's exist—and furthermore, the ones that we know to exist are also P's. So, we place an 'X' in the overlapping region in order to represent the fact that something exists there.



### (O) Some S are not P.

Again, particular statements DO imply existence. So, we DO know that some S's exist, and the ones that we know to exist are NOT P's. So, we draw an 'X' in the part of the S-circle that does not overlap with the P-circle in order to represent the fact that something exists there.

*Note: **Universal** statements (A and E) always have **shading** on their Venn diagrams, while **particular** statements (O and I) always have an '**X**' on their Venn diagrams.*

