

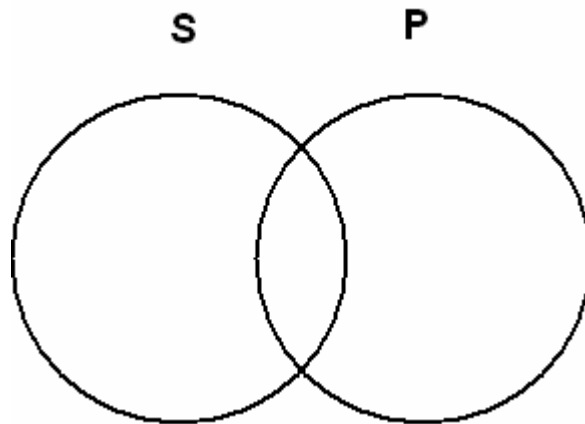
Understanding Propositional Venn Diagrams

Outline prepared and written by:

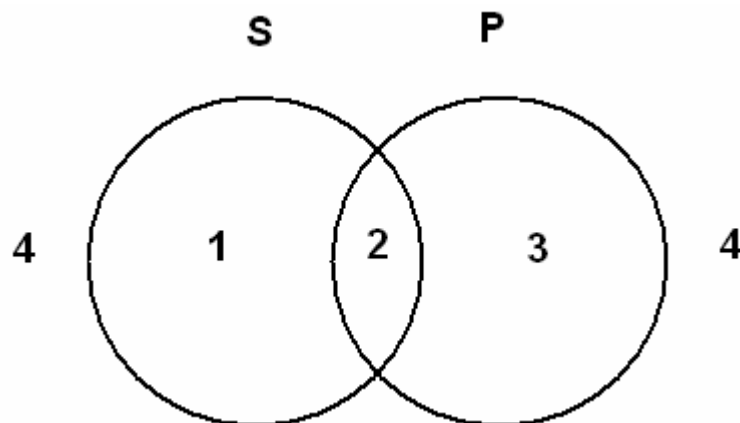
Dr. Jason J. Campbell:

<http://www.jasonjcampbell.org/blog.php>

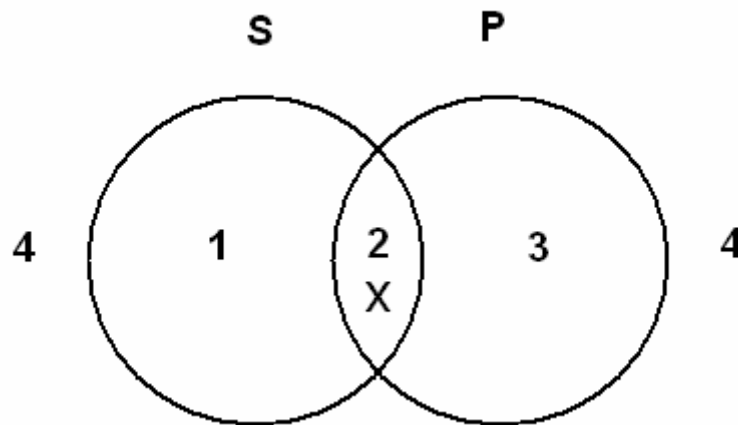
1. Propositional Venn Diagrams are Divided into the **Subject Class** and the **Predicate Class**. The subject class is represented by **S**, the predicate class is represented by **P**.



2. As a standard the **subject class is drawn to the left** and the **predicate class to the right**.
3. Venn Diagrams are divided into **4 regions**.

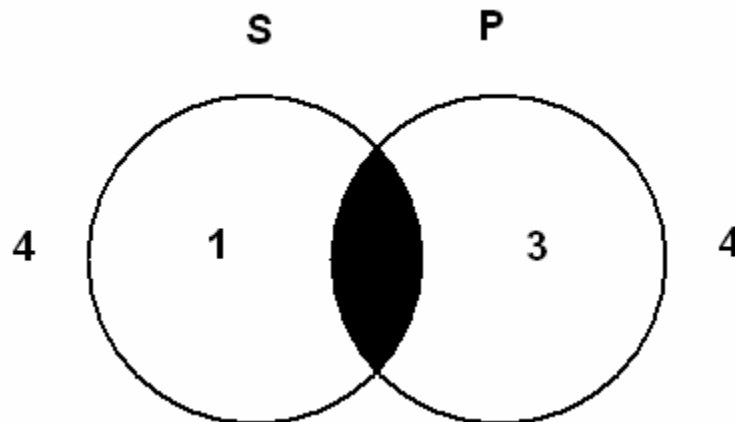


X: indicates that the region **is not empty**.



Something is occupying region 2 in the above Venn.

Shading within a region indicates that **the region is empty**



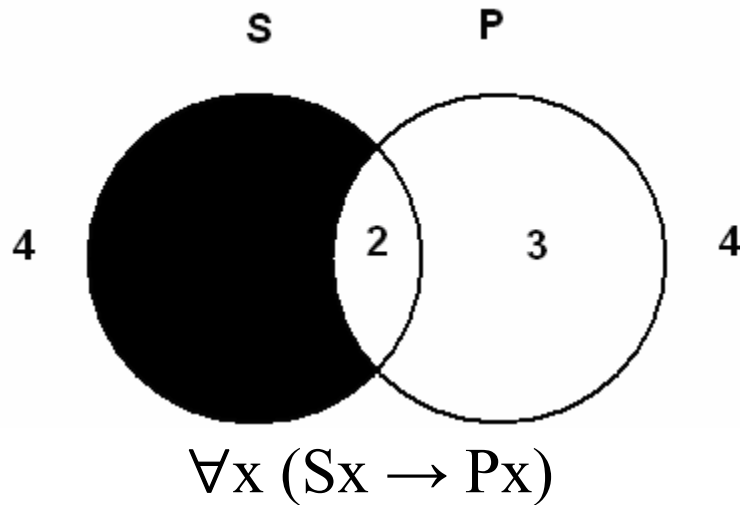
This is the opposite claim in the previous example. This Venn is informing us that nothing exists in region 2.

Four Classes of Propositional Venn Diagrams:

1. Two Classes of Universal Propositions / Negated Existential
 - i. A Propositions
 - ii. E Propositions
2. Two Classes of Existential Propositions
 - i. I Propositions
 - ii. O Propositions

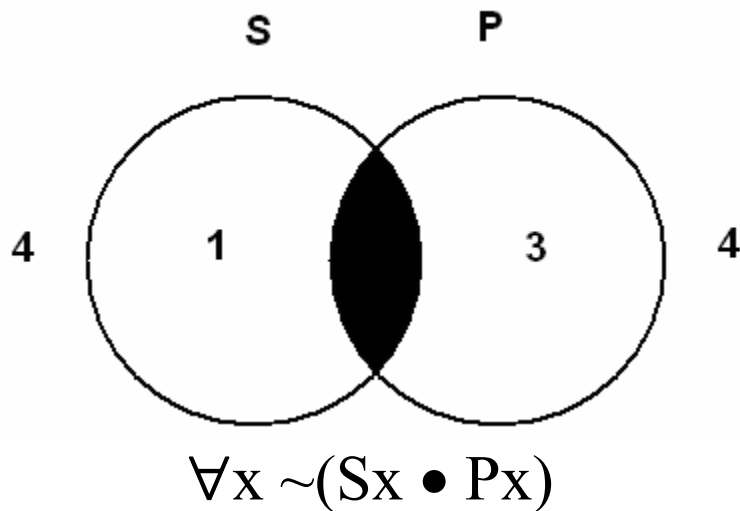
Universal Propositions

A Proposition:



All S's are P's, There are no S's that are not P's

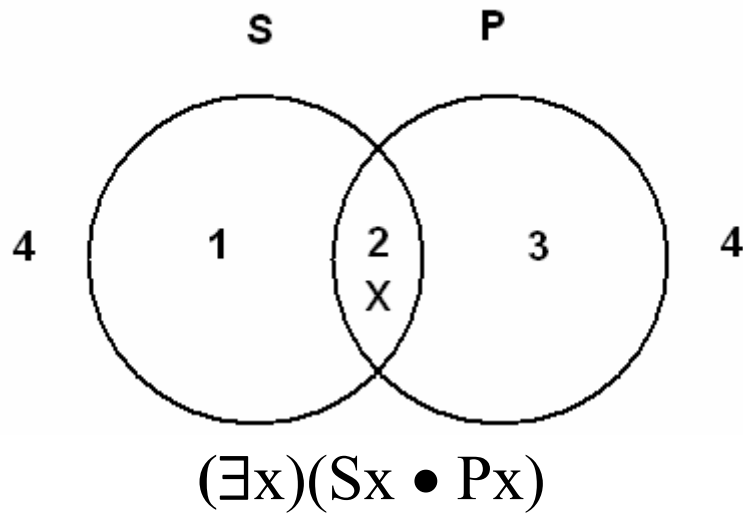
E Proposition:



No S's are P's, no P's are S's

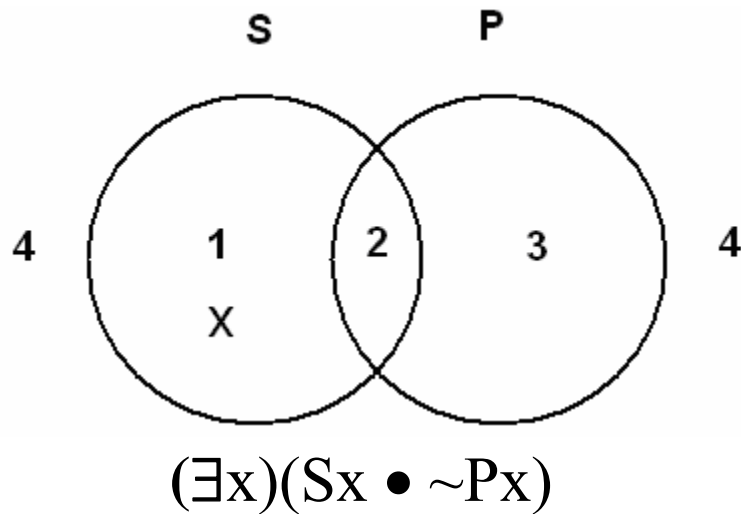
Existential Propositions

I Proposition



There exists an X that is both an S and a P.

O Proposition



There exists an X that is an S but not a P.