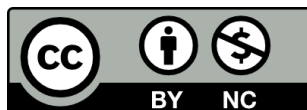




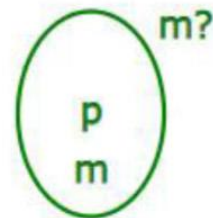
The **Marlo diagram** is an innovative way to visualize logical reasoning. With minimal training you will be able to easily represent and solve syllogisms and propositional logic in an intuitive and innovative way.



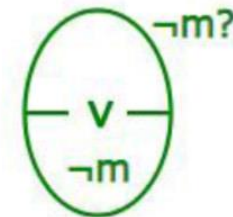


First use the “**Creation**” area to generate the diagrams of the premises. We recommend you start by exploring the “**Practice with exercises**” area.

Creation
Subj:
Pred:
Type: T-P



All primates are mammals

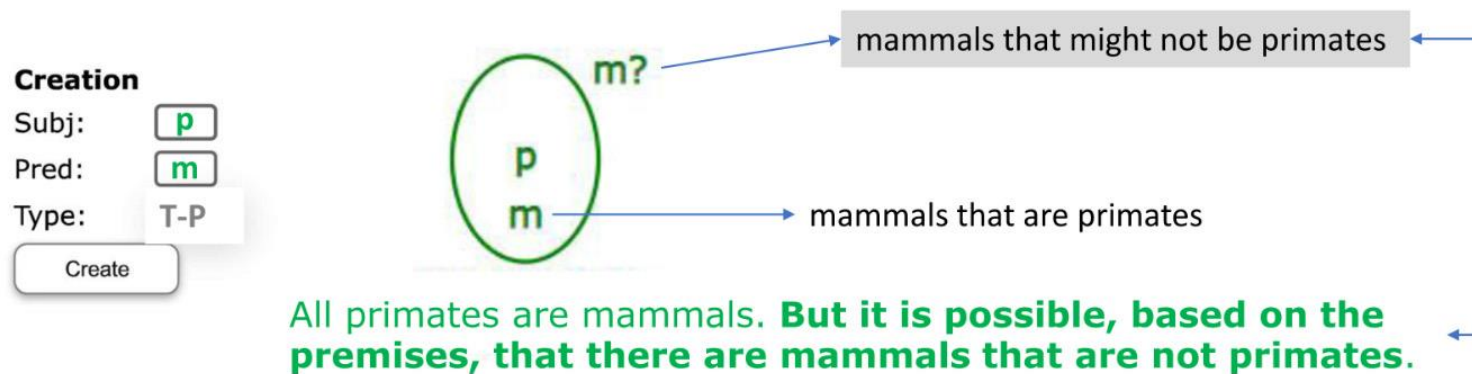


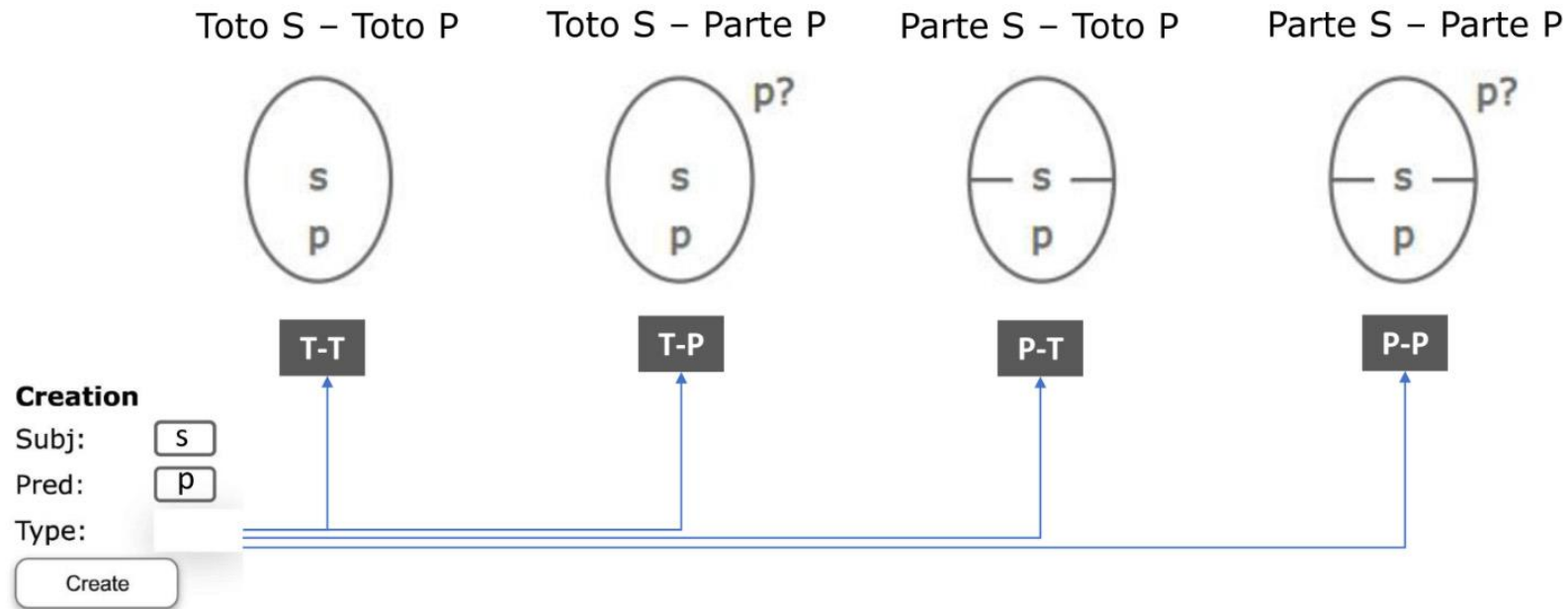
Some vertebrates are not mammals





The **subject** appears in the center of what we call the propositional model, which may or may not be divided, and the **predicate** will appear to one side of the model and often outside the subject model as well.

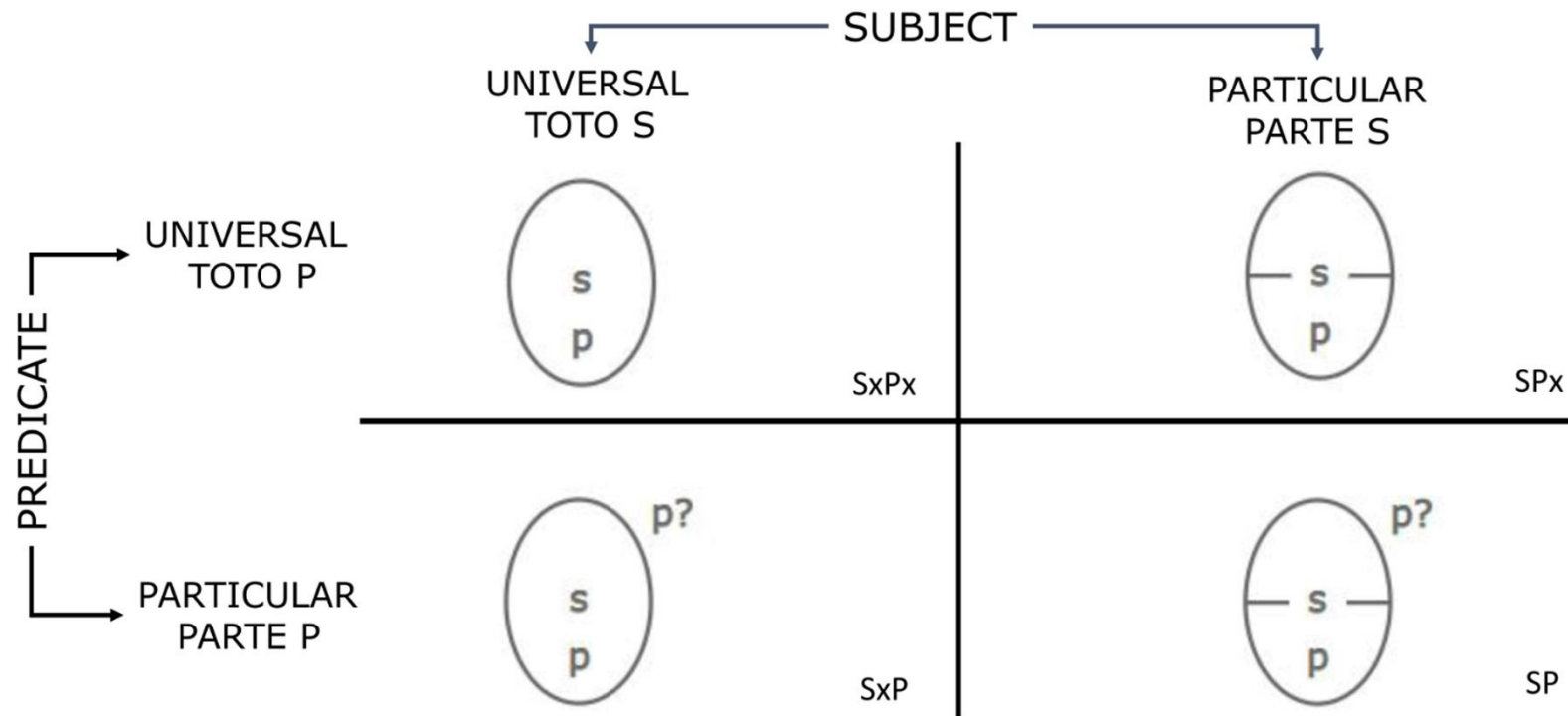
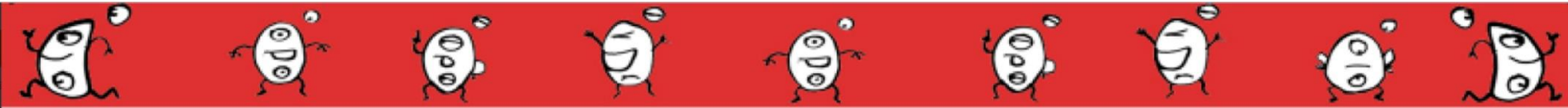




There are four **types** of elementary propositions.

We recommend you start by exploring the “Practice with exercises” area.

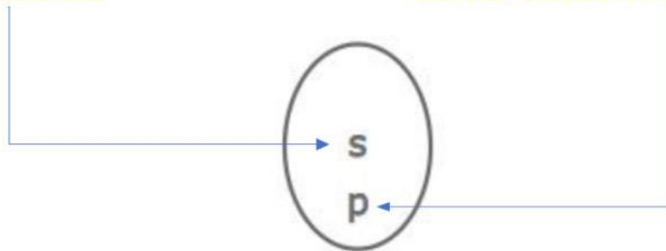




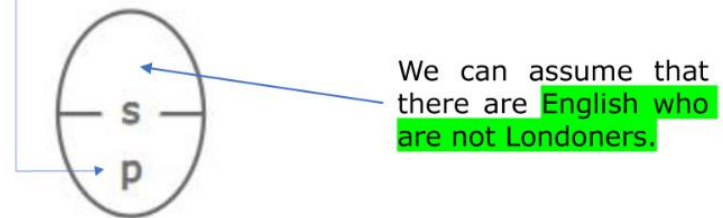
In Marlo's notation, the presence of the subscript X means Toto, while its absence means Part.



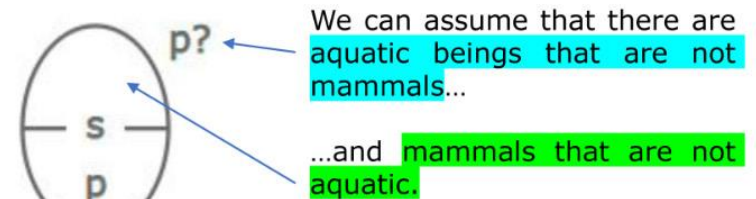
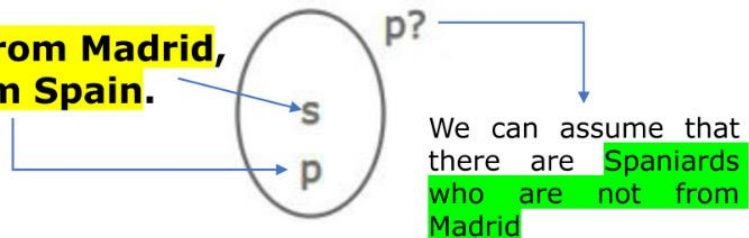
Being even is equivalent to **being divisible by two.**



Only among the English there are **Londoners.**



If you are from Madrid,
you are from Spain.



Some mammals are **aquatic.**

We recommend you start by exploring the "Practice with exercises" area.

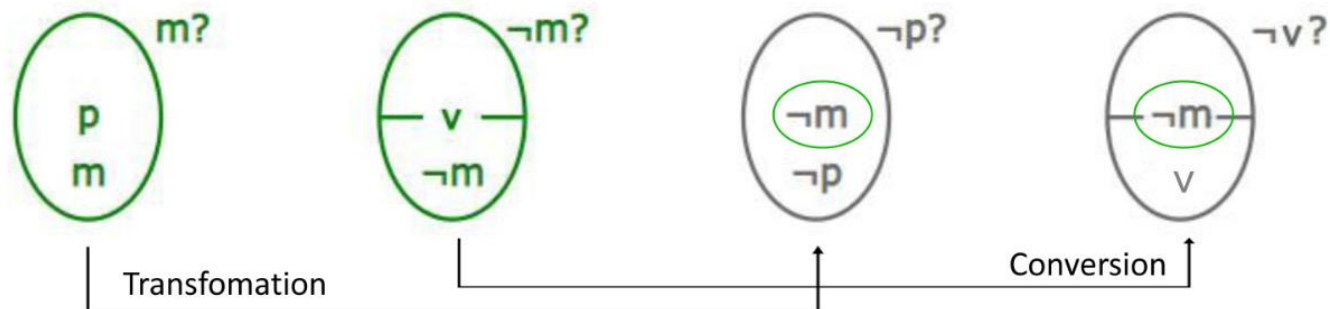


Once the premises are represented, use the **Conversion** and **Transformation** operations to match the subject of their diagrams.

Conversion	Transformation
Diagram: 2	Diagram: 1
Literal: $\neg m$	
<input type="button" value="Convert"/>	<input type="button" value="Transform"/>

If it's not a mammal,
it's not a primate.

Some that are not mammals
are vertebrates.



We recommend you start by exploring the "Practice with exercises" area.





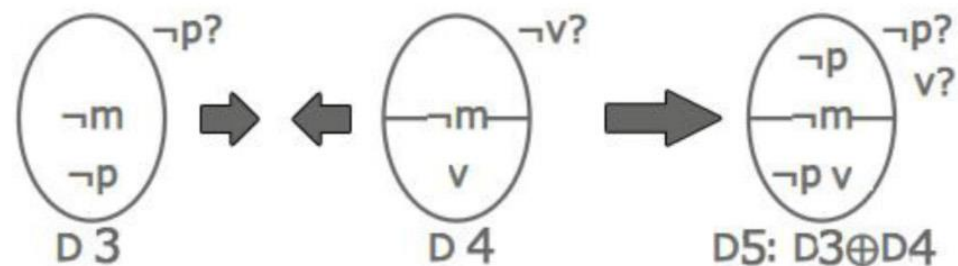
Diagrams with the same subject can be synthesized to draw conclusions.

Use the "Inference" operation

Inference

Diag. 1:

Diag. 2:



We recommend you start by exploring the "Practice with exercises" area.





Convert the diagram obtained by inference to present the conclusion from the term you prefer.

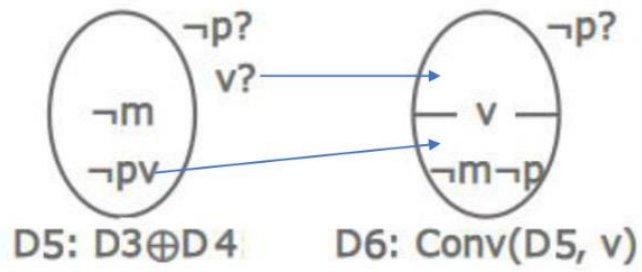
Note that in diagram 5 only part of V is necessarily associated with $\neg P$. That is why we represent in 6 a part of V as indeterminate.

Conversion

Diagram: 5

Literal: V

Convert



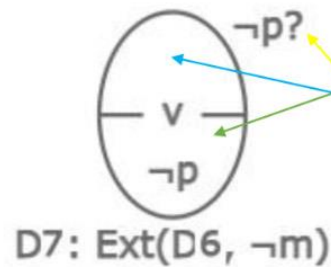
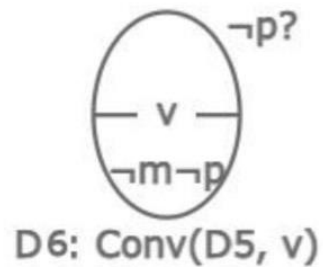


Extraction

Diagram:

Literal:

Finally, delete the middle term to obtain a clearer conclusion. Use the **Extraction** operation.



Some **vertebrates** are **not primates**

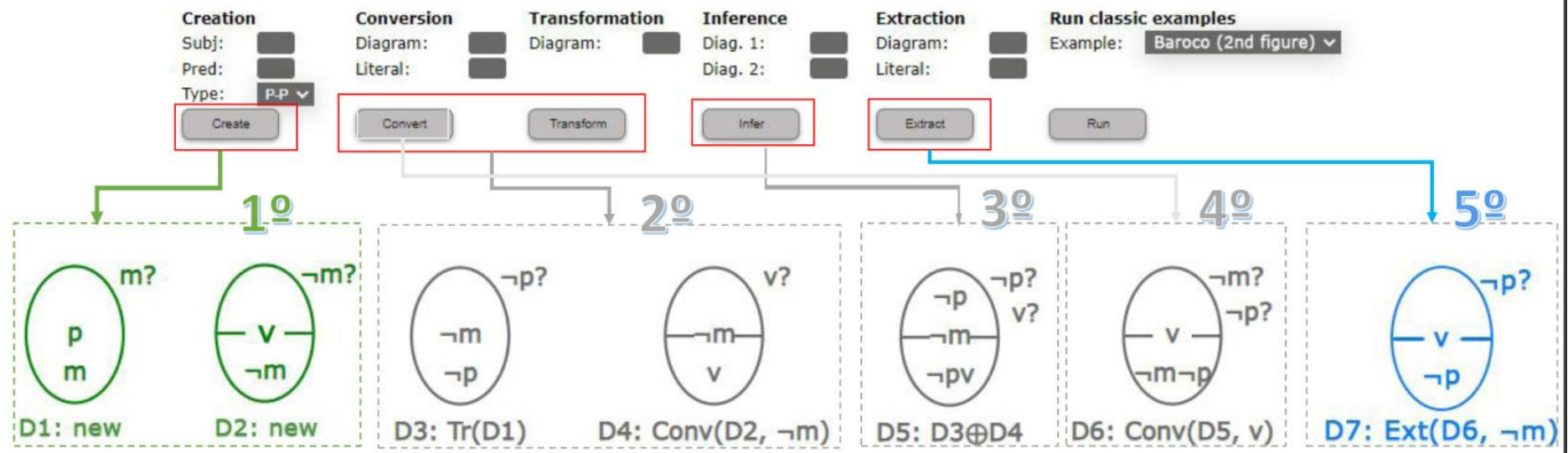
Some **vertebrates** may be **primates**

There could be **non-vertebrate** animals that are **not primates**.

We recommend you start by exploring the "Practice with exercises" area.

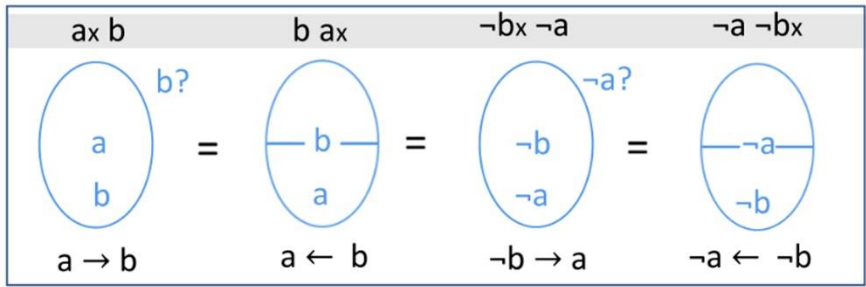
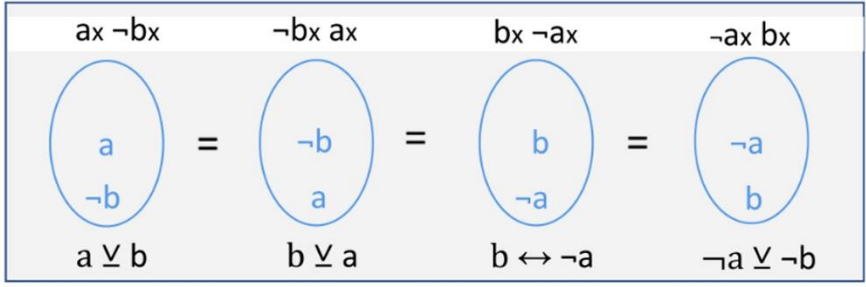
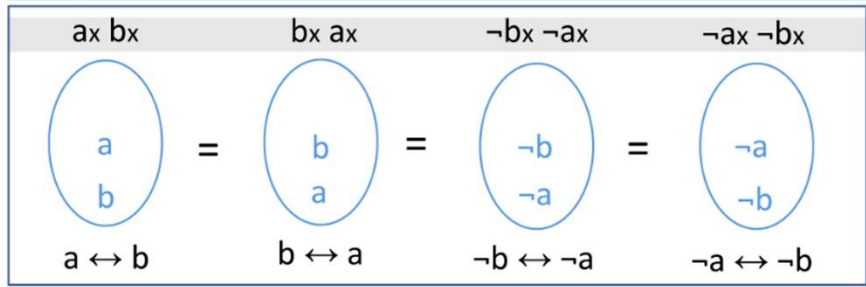


In summary: 1^o **Create** premises, 2^o **Match** the middle term by conversion and transformation, 3^o **Synthesize** by inference, 4^o **Convert** and 5^o **Simplify** by extraction.

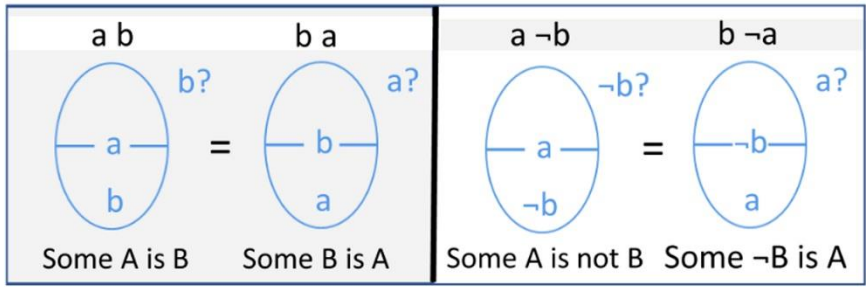
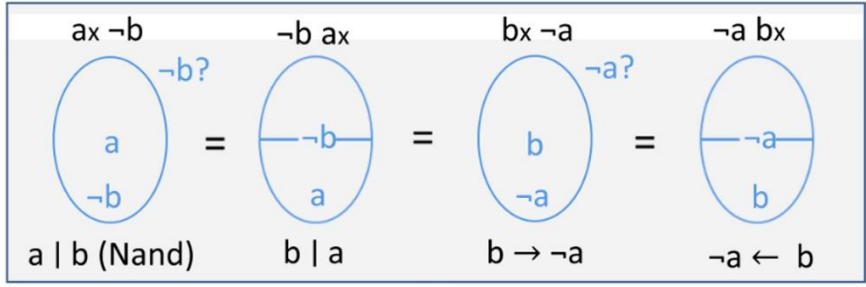
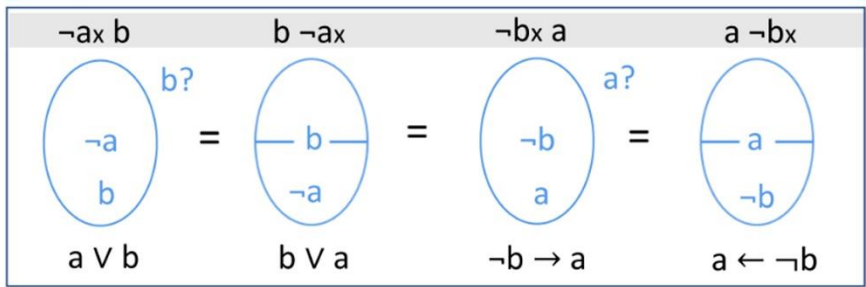


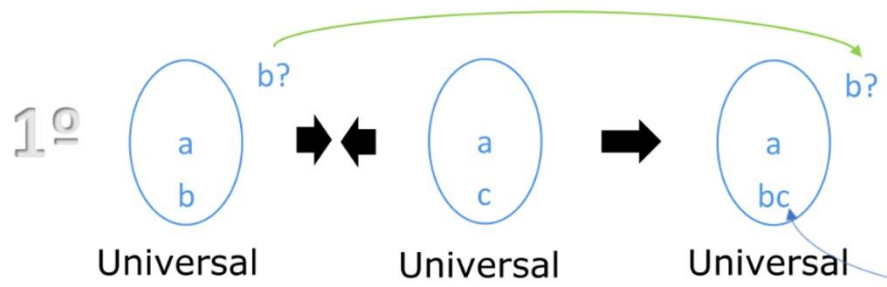
We recommend running the classic examples.

Proposition Conversion Transformation Conversion



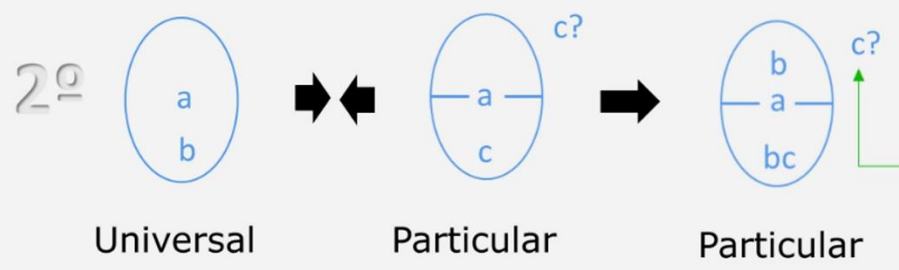
Proposition Conversion Transformation Conversion



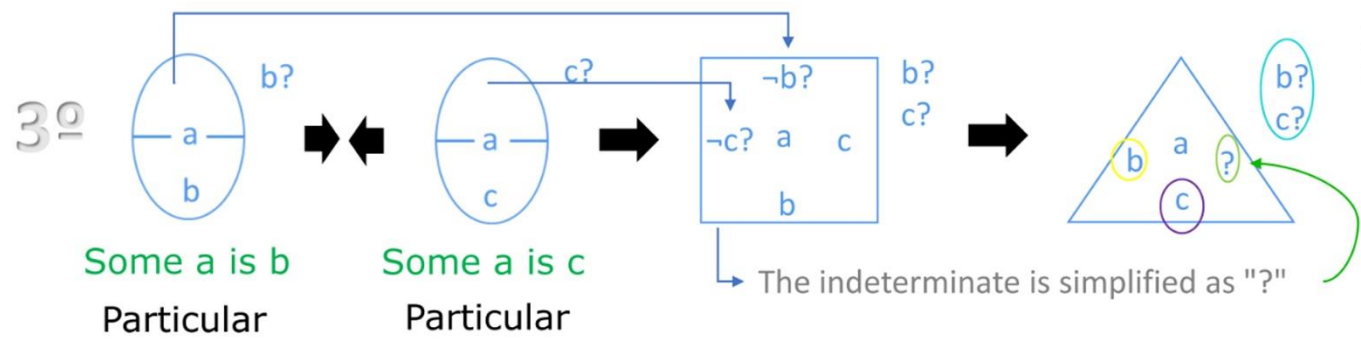


We must not forget to collect all the variables outside the models, which are not necessarily associated and may even not exist. $b? = -b?$

b and c are necessarily associated within "a model". In this case, **all c is b**, although only part of b is necessarily c.



b and c are necessarily associated in one part of "a model", In this case, Part of c is b, because it is still possible to assume **c in the $\neg a$ region**.



No necessary conclusion follows from two particulars.

Part of a is b, part of a is c, **a-b** or **a-c** are possible. **$\neg abc$, $\neg a-bc$, $\neg a-b-c$** and **$\neg ab-c$** are still possible. And **abc** is probable.

