First Hand-out on Existential Graphs

(Prepared for Dr. Marc Champagne’s amazing students)

Part 1 – Direct derivations

Represent the premises of the following arguments with Existential Graphs.
Then, modifying those graphs with the five diagrammatic permissions (insertion, erasure, iteration, deiteration, and double-cut), show how one can obtain a graph of the conclusion.

1) If P, then Q. It is the case that P. Therefore, it is the case that Q.
2) If P, then Q. It is not the case that Q. Therefore, it is not the case that P.
3) It is not the case that not P. Therefore, P.
4) It is the case that P. Therefore, it is the case that P and P.
5) It is the case that P. Therefore, it is the case that either P or Q.
6) It is the case that P. It is the case that Q. Therefore, it is the case that P and Q.
7) It is the case that P and Q. Therefore, it is the case that Q.
8) P is equivalent to Q. Therefore, if it is the case that P, then it is the case that Q (and if it is the case that Q, then it is the case that P).
9) If P, then Q. And, if Q, then P. Therefore, P and Q are equivalent.
10) Either P or Q. Now, it is not the case that P. Therefore, Q.
11) It is not the case that P and Q. Therefore, either not P or not Q.
12) If P, then Q. If Q, then R. Therefore, if P then R.
13) If P, then R. If Q, then S. Now, either P or Q. Therefore, either R or S.
14) If P, then R. If Q, then S. Now, either not R or not S. Therefore, either not P or not Q.

Part 2 – Indirect derivations

Represent the premises of the following arguments with Existential Graphs.
Then, assume that the conclusion is false and show how the graphs can be modified with the five diagrammatic permissions to obtain a contrapiction.

15) If P, then Q. It is the case that P. Therefore, it is the case that Q.
16) If P, then Q. It is not the case that Q. Therefore, it is not the case that P.
17) Either P or Q. Now, it is not the case that P. Therefore, Q.
18) If P, then Q. If Q, then R. Therefore, if P then R.
19) If P, then R. If Q, then S. Now, either P or Q. Therefore, either R or S.
20) If P, then R. If Q, then S. Now, either not R or not S. Therefore, either not P or not Q.

Second Hand-out on Existential Graphs

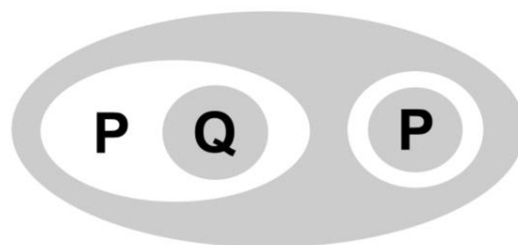
(Prepared for Dr. Marc Champagne's amazing students)

Part 1 – Direct derivations

Modifying the graph of the premises with the five diagrammatic permissions
(insertion, erasure, iteration, deiteration, and double-cut),
show step by step how one can obtain a graph of the conclusion.

Question 1)

Premises



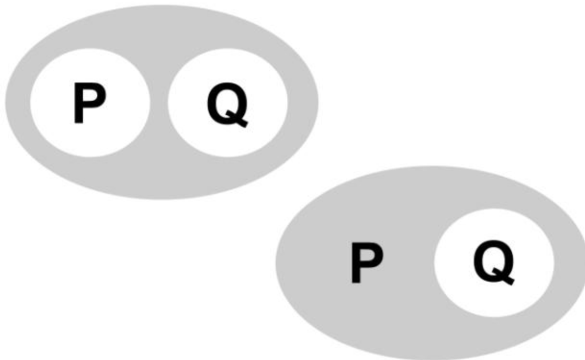
Conclusion

Question 2)

Premises

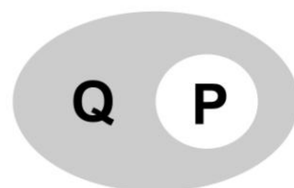
Conclusion

Question 3)



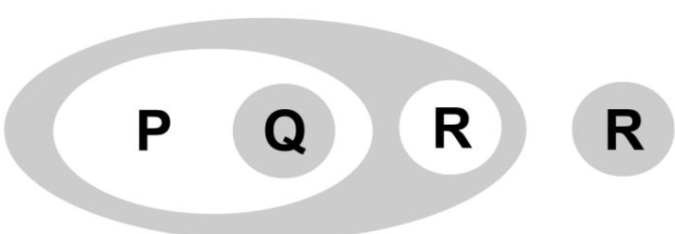
Premises Conclusion

Question 4)



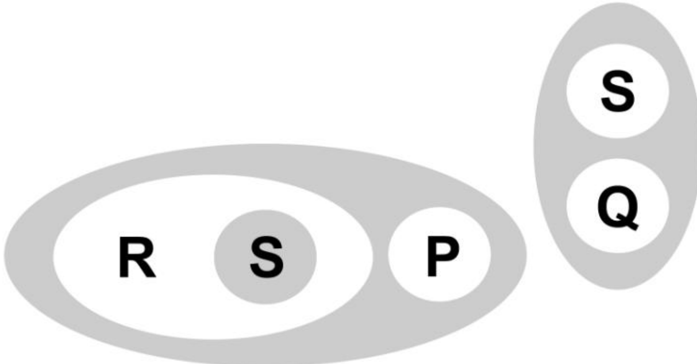
Premises Conclusion

Question 5)

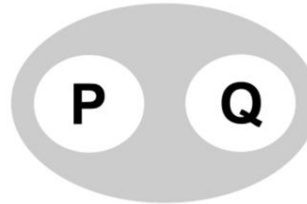


Premises Conclusion

Question 6)

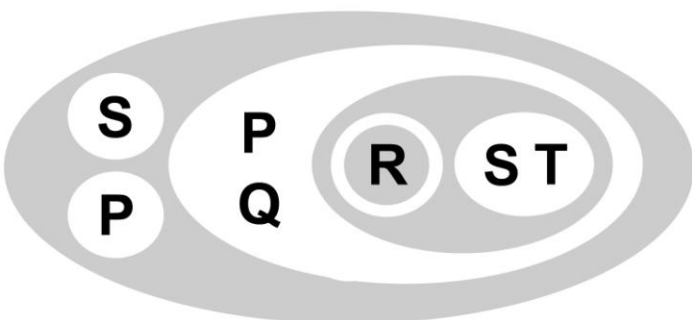


Premises



Conclusion

Question 7)



Premises

Conclusion

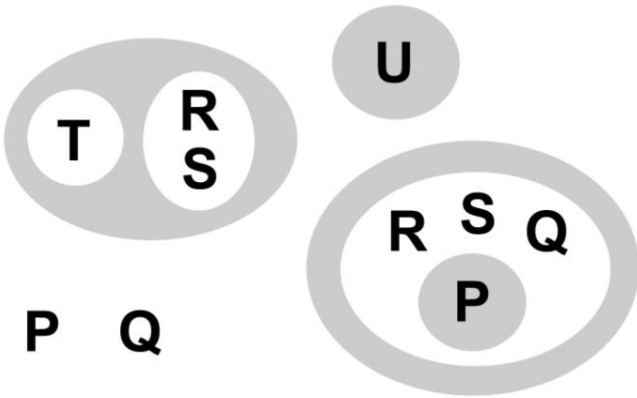
Question 8)

P Q

Premises

Conclusion

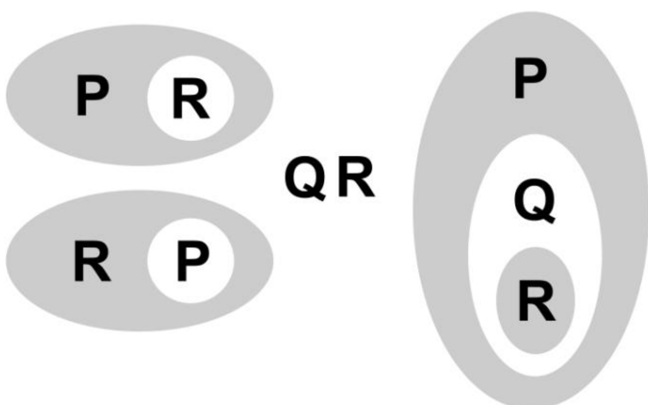
Question 9)



Premises

Conclusion

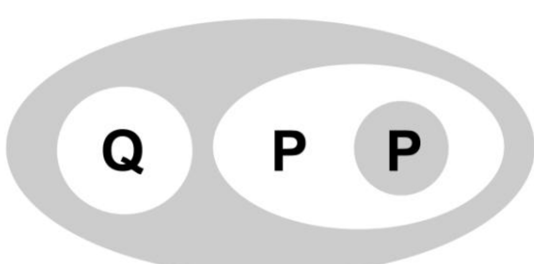
Question 10)



Premises

Conclusion

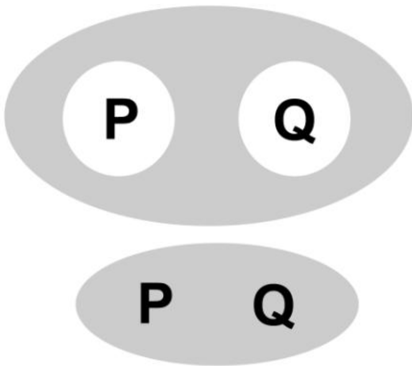
Question 11)



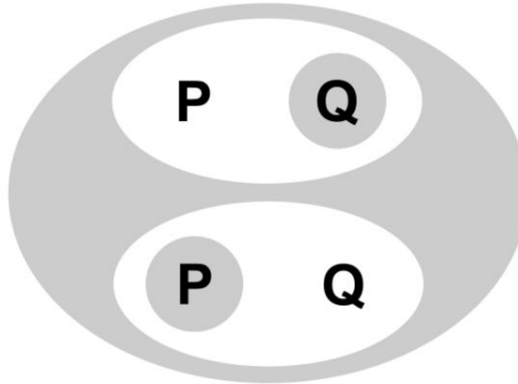
Premises

Conclusion

Question 12)



Premises

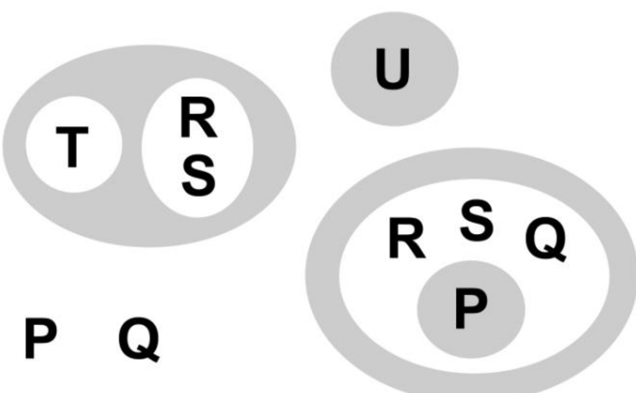


Conclusion

Part 2 – Indirect derivations

Assume that the conclusion of the argument is false,
then show how the graphs can be modified
to obtain a contrapiction.

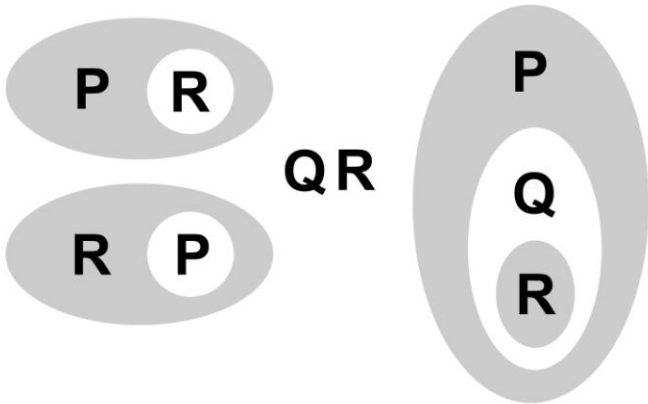
Question 13)



Premises

Conclusion

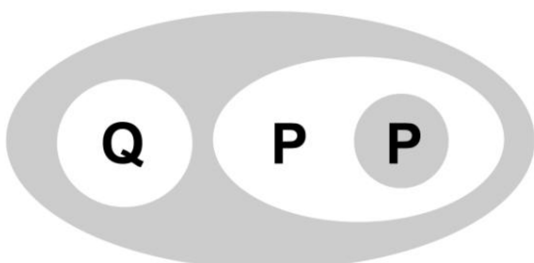
Question 14)



Premises

Conclusion

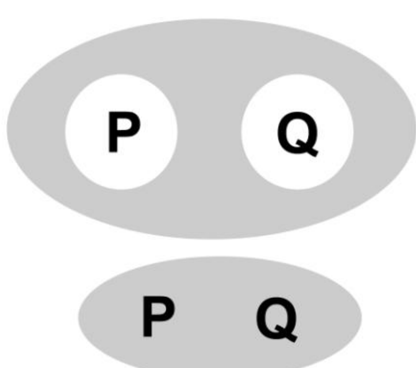
Question 15)



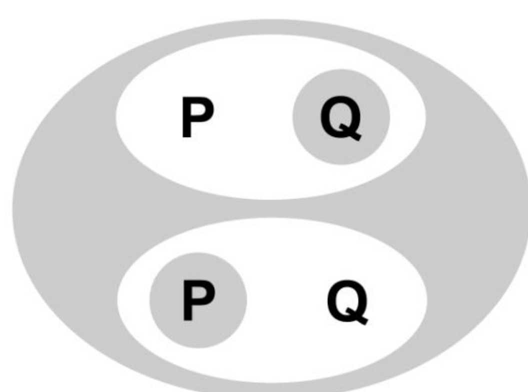
Premises

Conclusion

Question 16)



Premises

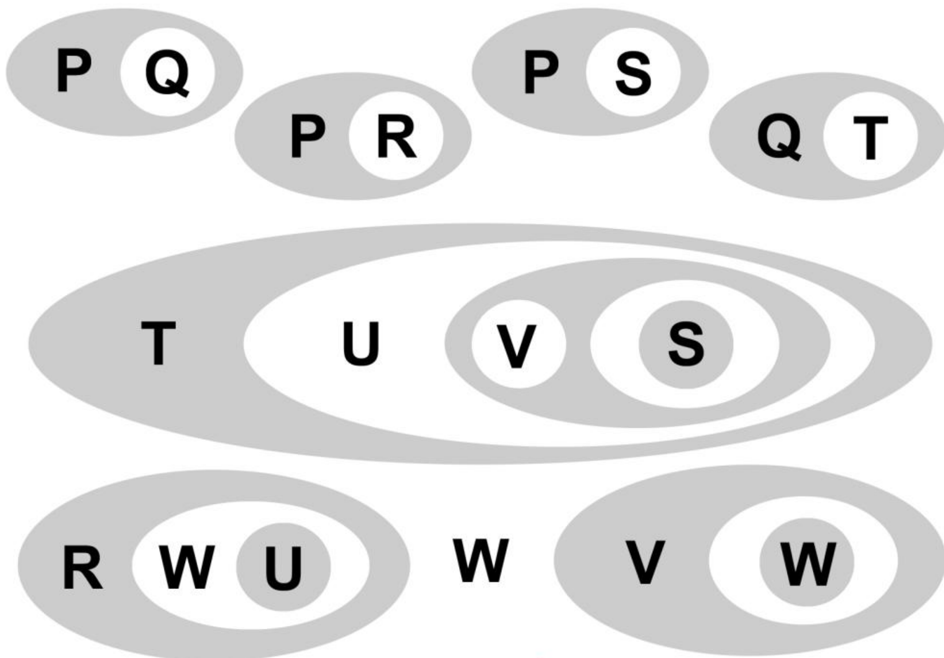


Conclusion

Extra Hand-out on Existential Graphs

(Prepared for Dr. Marc Champagne's amazing students)

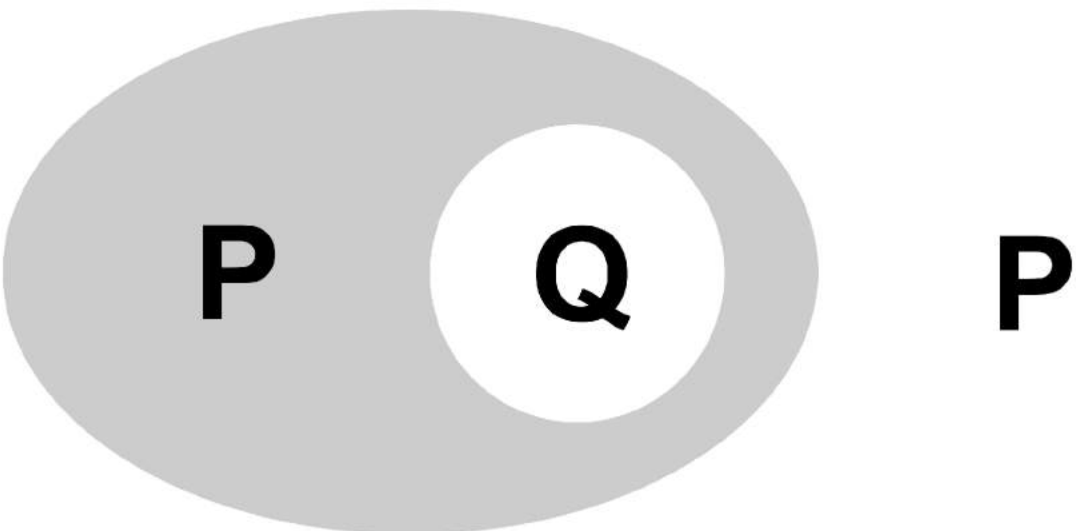
Derive this argument directly. Then, as a second question, derive it indirectly.



Premises

Conclusion

Hand-out on Existential Graphs, question 1



Premises

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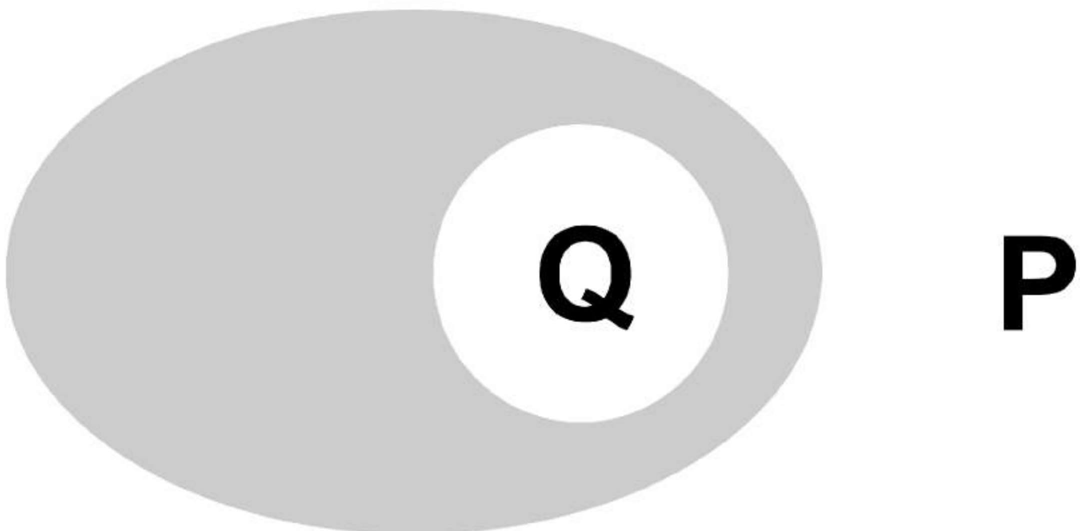
Hand-out on Existential Graphs, question 1



Deiterate

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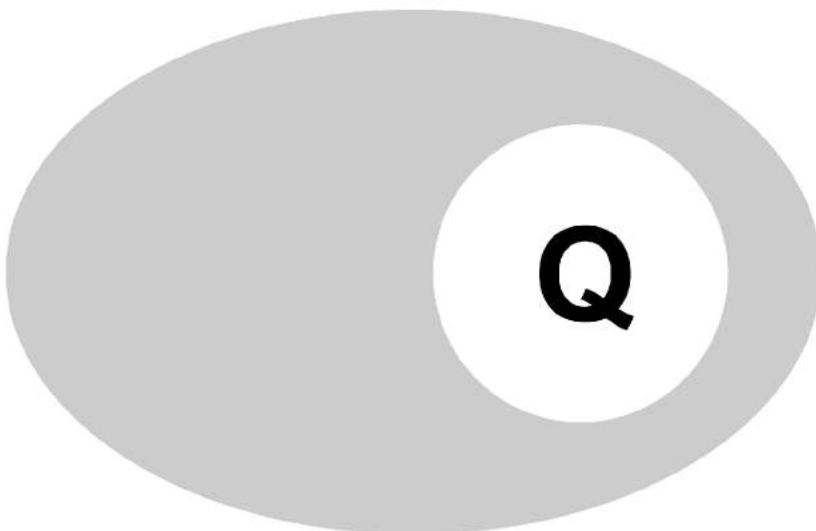
Hand-out on Existential Graphs, question 1



Erase

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Hand-out on Existential Graphs, question 1

Q

Double cut

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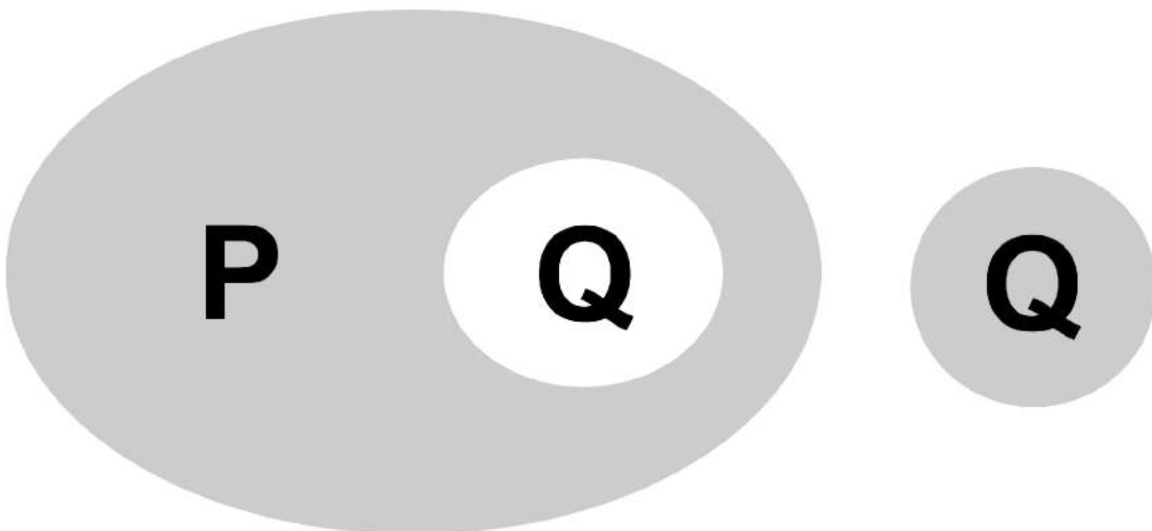
Q

Conclusion

Hand-out on Existential Graphs, question 2



Premises

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Hand-out on Existential Graphs, question 2

Deiterate

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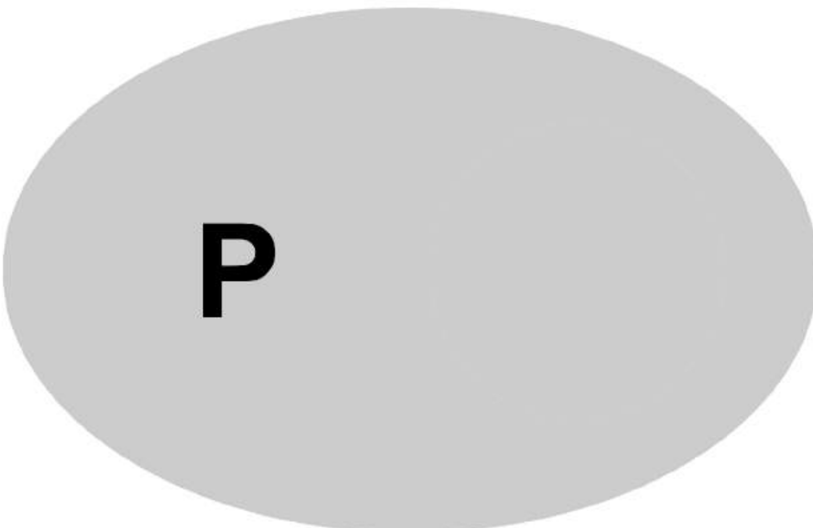
Hand-out on Existential Graphs, question 2



Erase

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Hand-out on Existential Graphs, question 2

Conclusion

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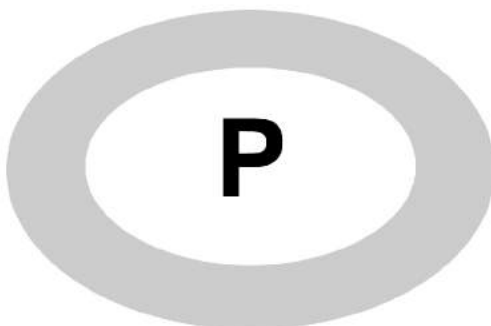
Hand-out on Existential Graphs, question 3



Premises

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Hand-out on Existential Graphs, question 3

P

Double cut

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P

Conclusion

Hand-out on Existential Graphs, question 4

P

Premises

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Hand-out on Existential Graphs, question 4

P **P**

Iterate

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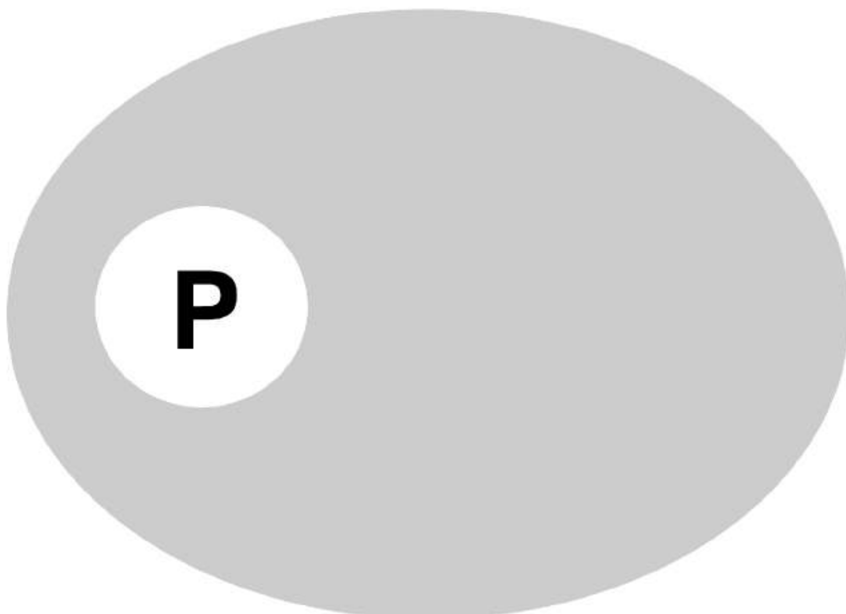
P **P**

Conclusion

P

Premises

Hand-out on Existential Graphs, question 5



Double cut

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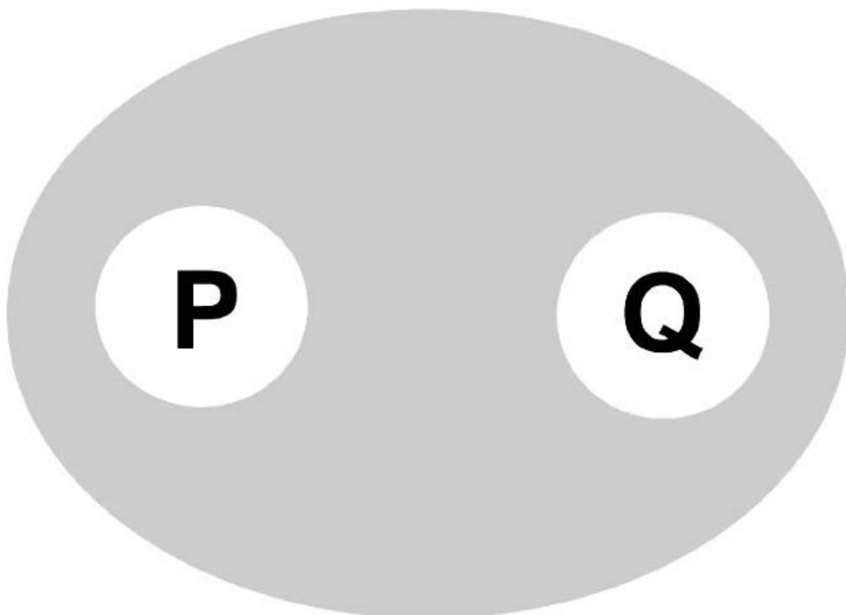
Hand-out on Existential Graphs, question 5



Insert

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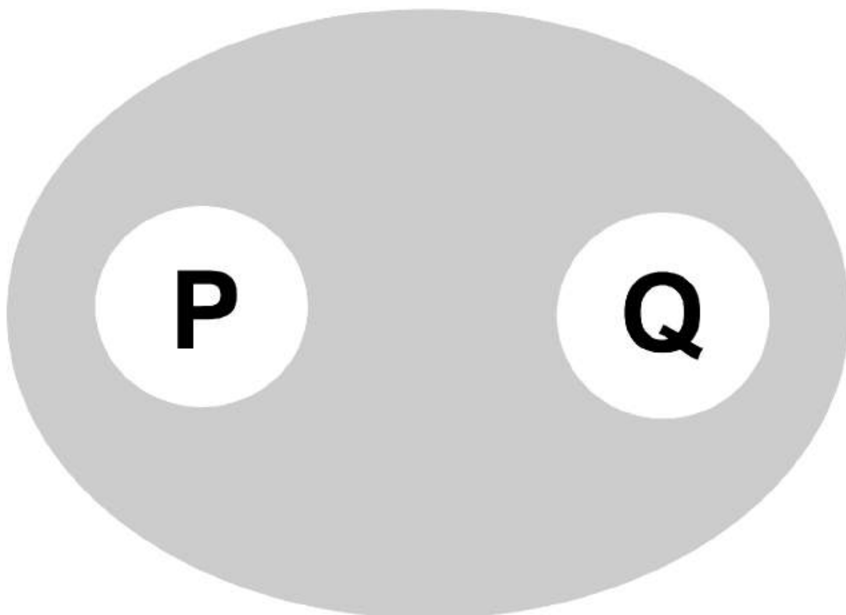
Hand-out on Existential Graphs, question 5



Conclusion

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Hand-out on Existential Graphs, question 6

P Q

Premises

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Hand-out on Existential Graphs, question 6

P **Q**

Conclusion

Hand-out on Existential Graphs, question 7

P **Q**

Premises

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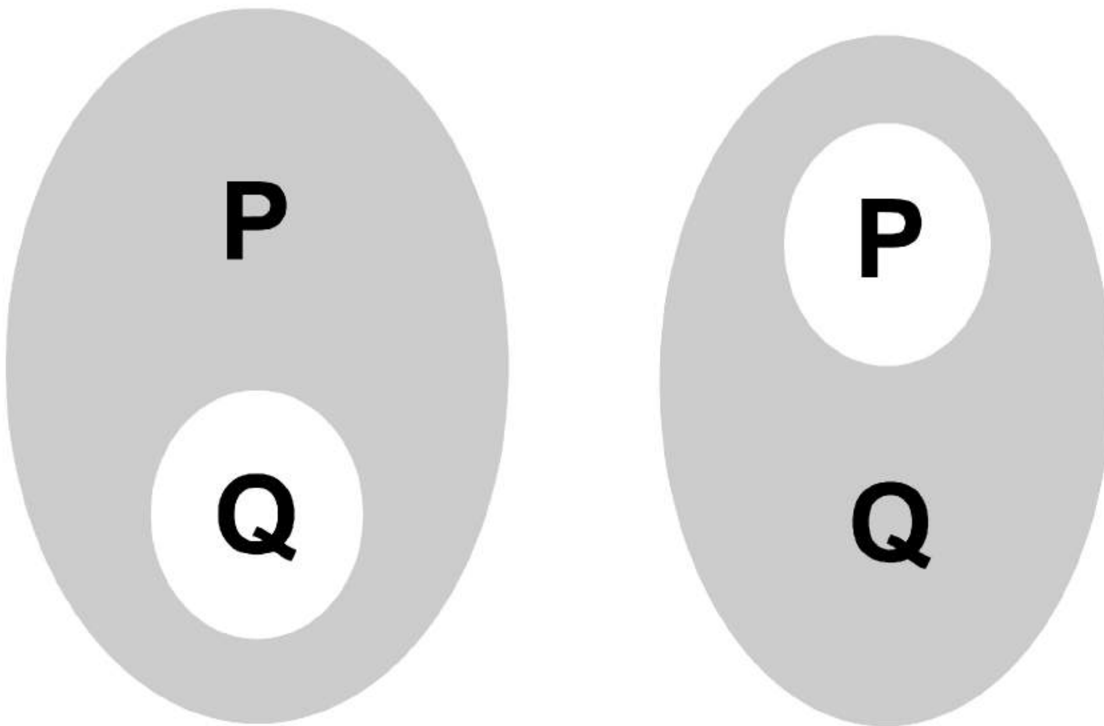
Q

Erase

Q

Conclusion

Hand-out on Existential Graphs, question 8



Premises

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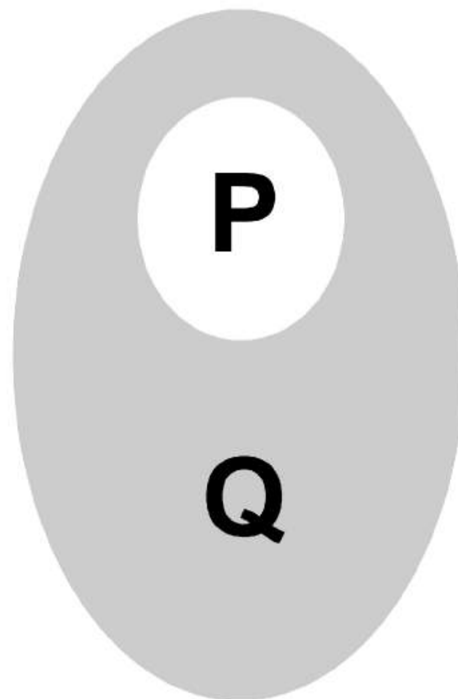

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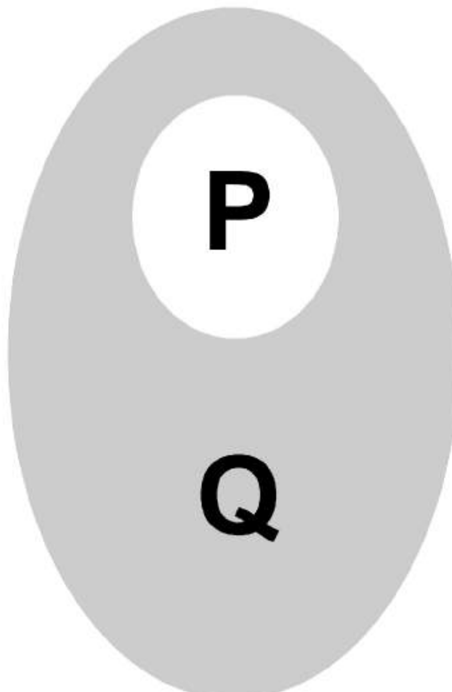
Hand-out on Existential Graphs, question 8



Conclusion

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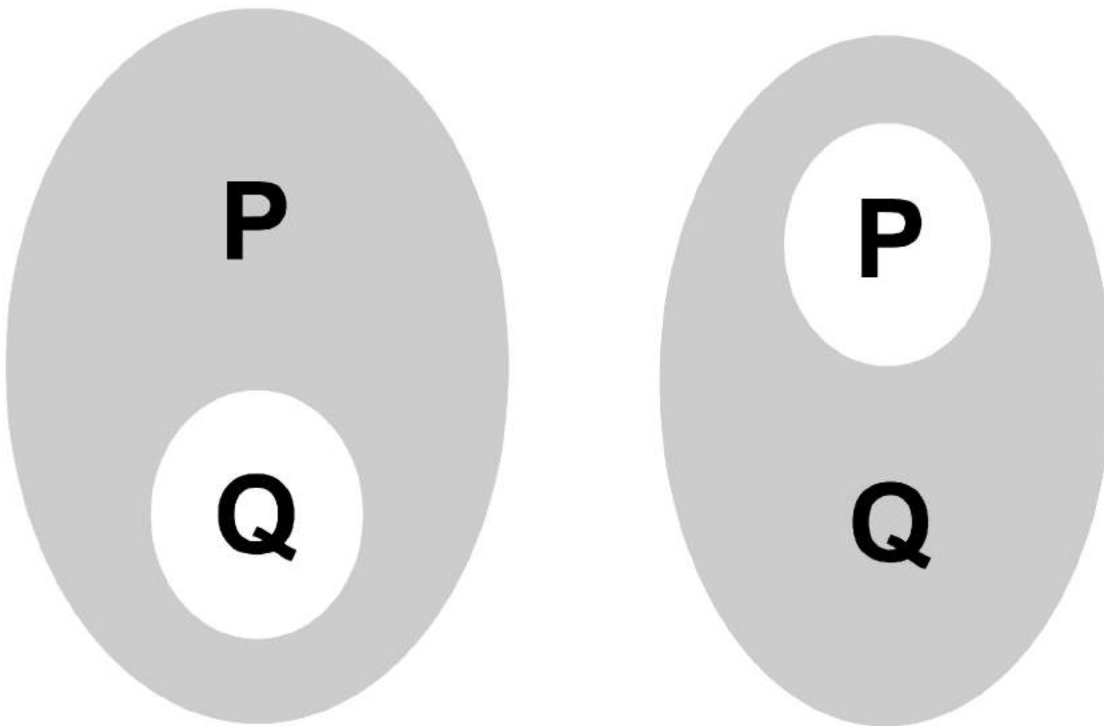
Hand-out on Existential Graphs, question 9



Premises

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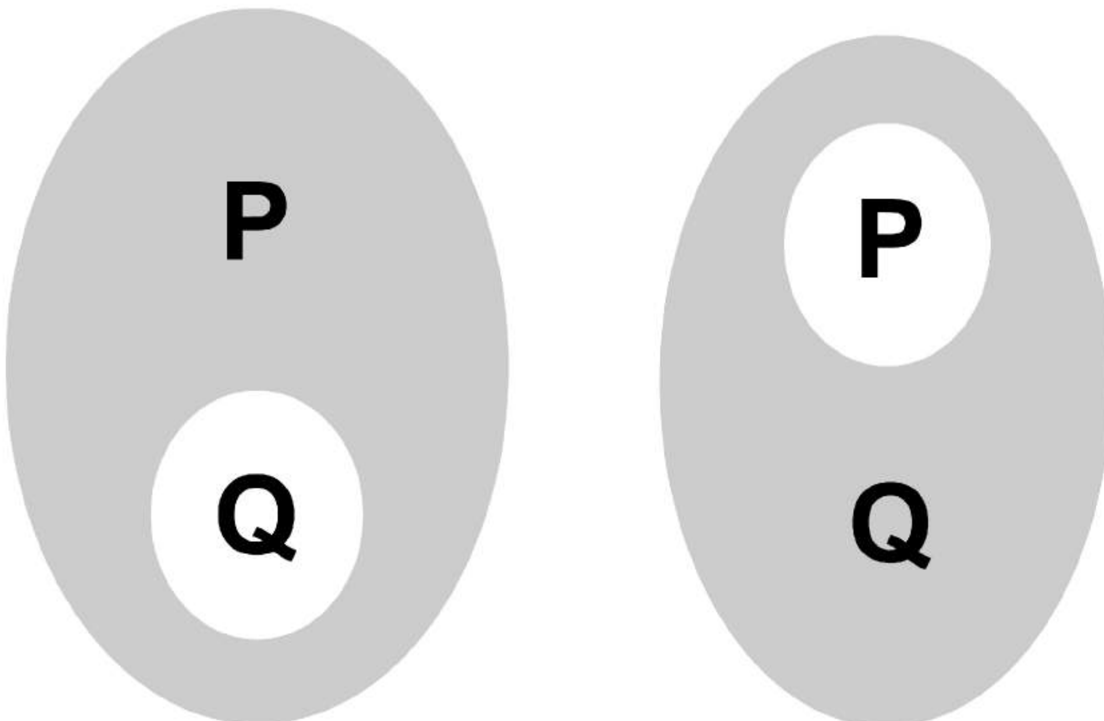
Hand-out on Existential Graphs, question 9



Conclusion

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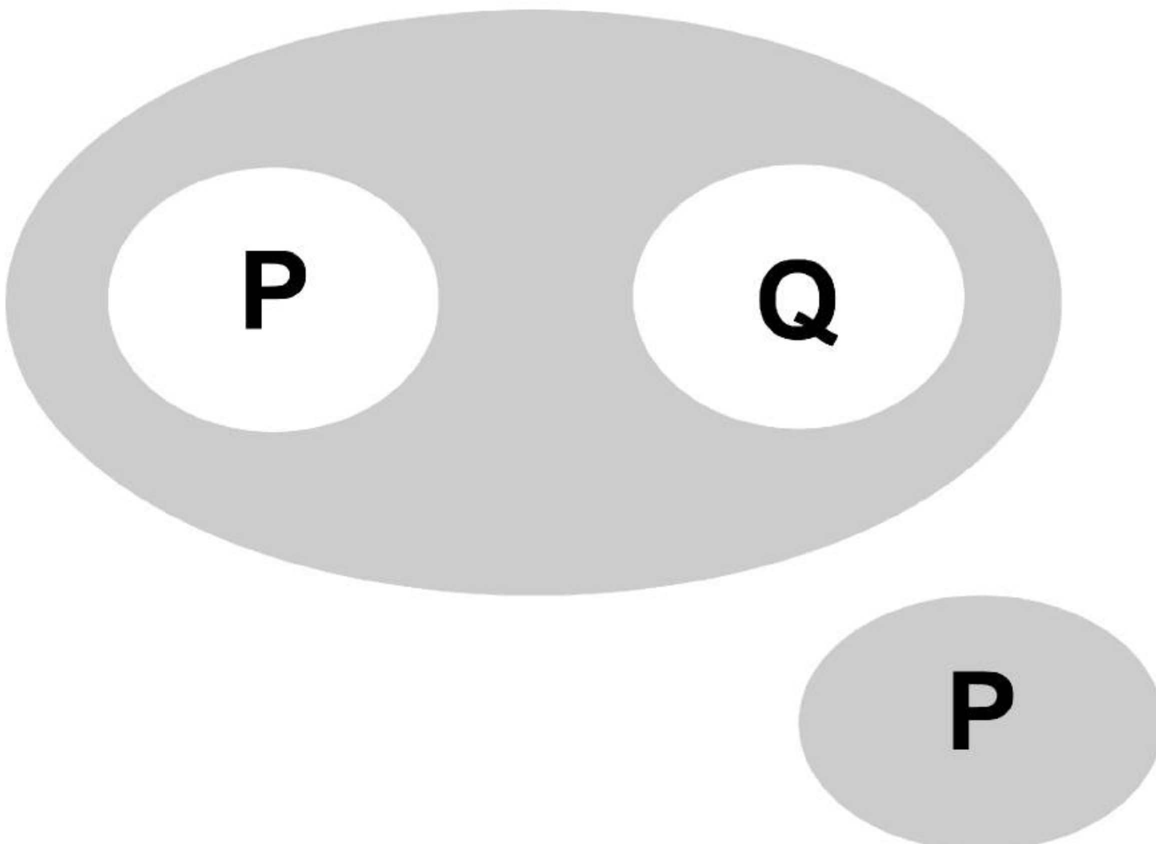
Hand-out on Existential Graphs, question 10



Premises

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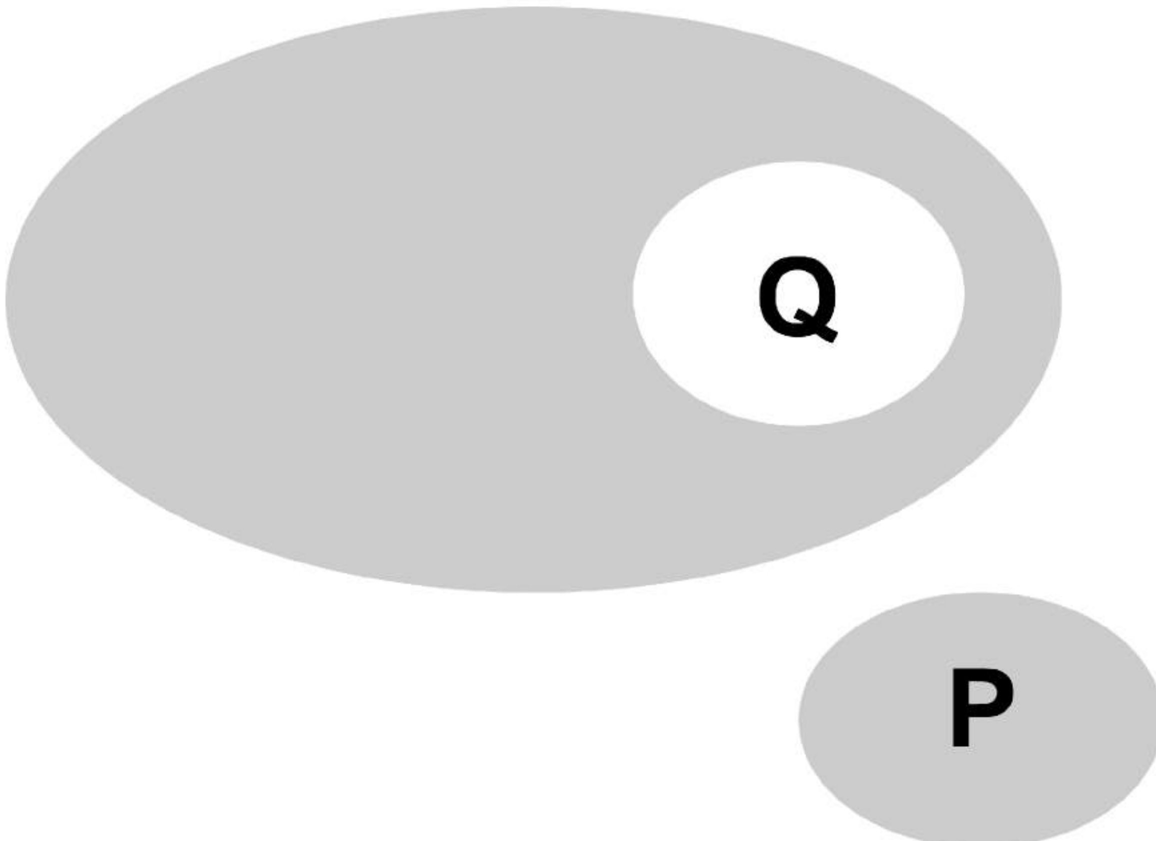
Hand-out on Existential Graphs, question 10



Deiterate

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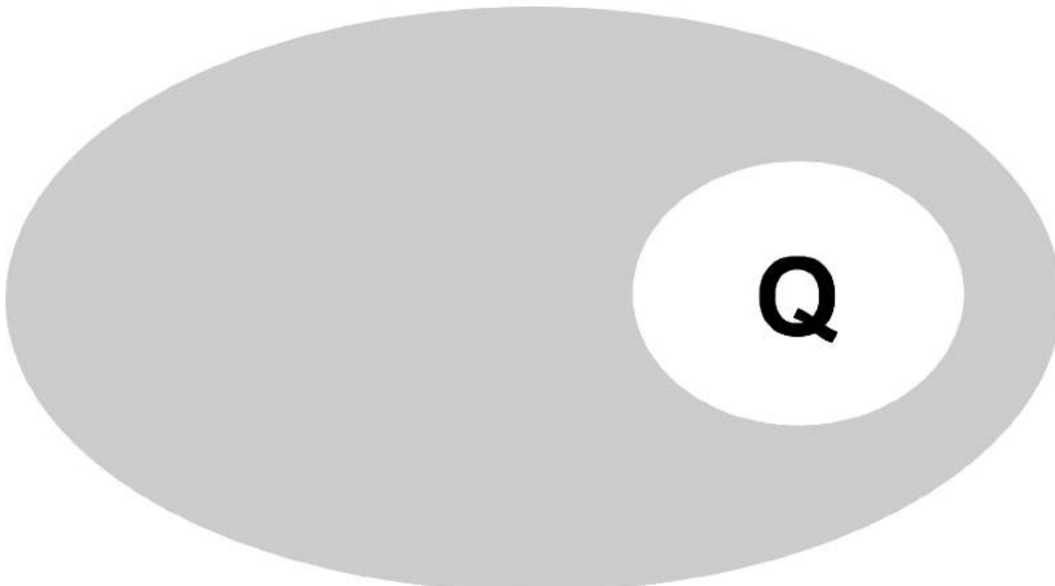
Hand-out on Existential Graphs, question 10



Erase

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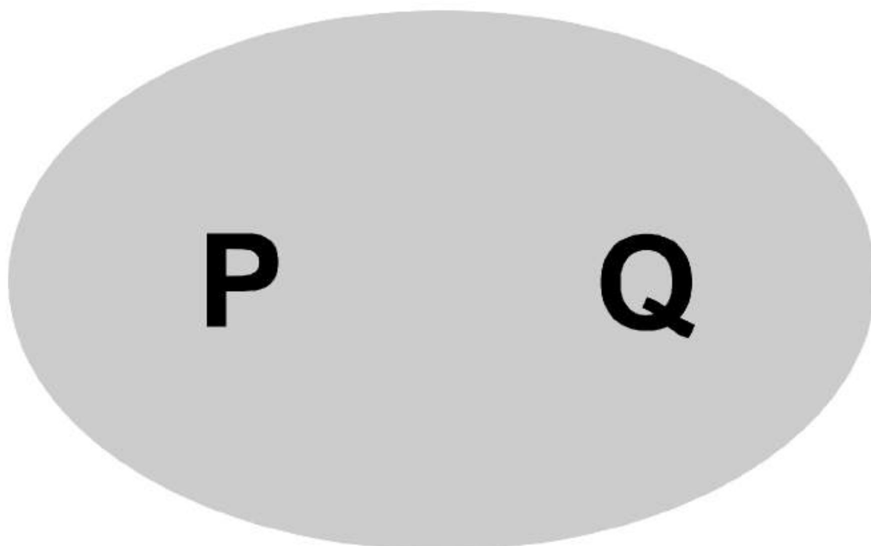
Q

Double cut

Q

Conclusion

Hand-out on Existential Graphs, question 11



Premises

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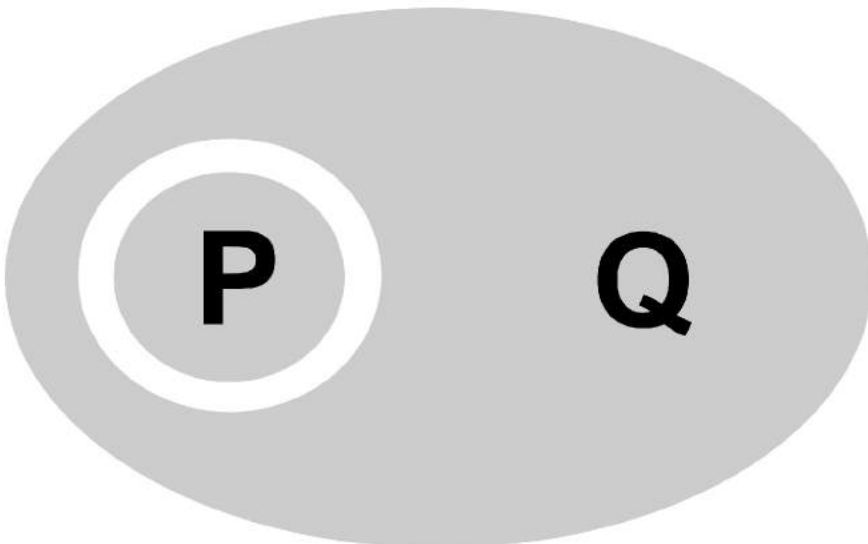
Hand-out on Existential Graphs, question 11



Double cut

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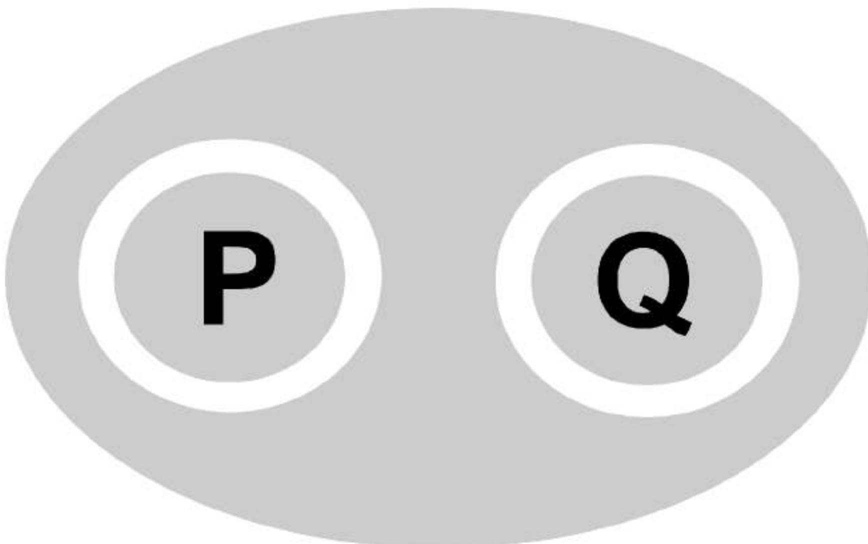
Hand-out on Existential Graphs, question 11



Double cut

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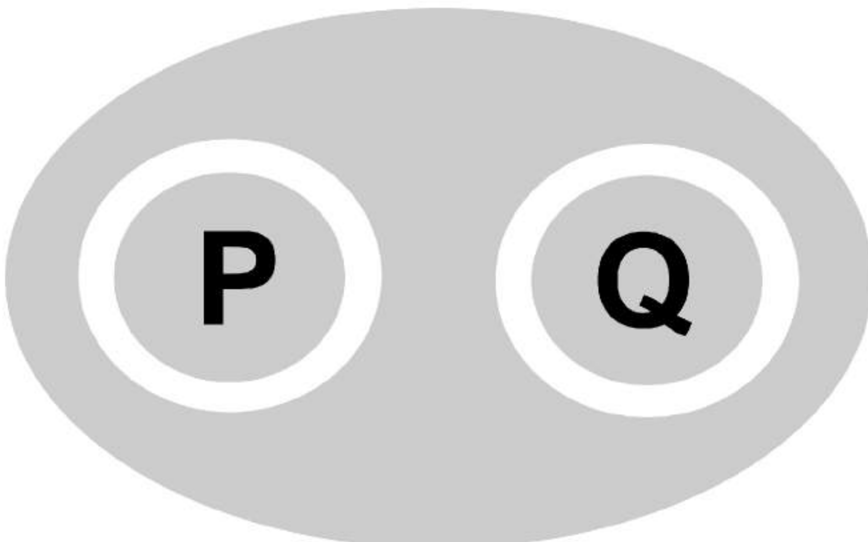
Hand-out on Existential Graphs, question 11



Conclusion

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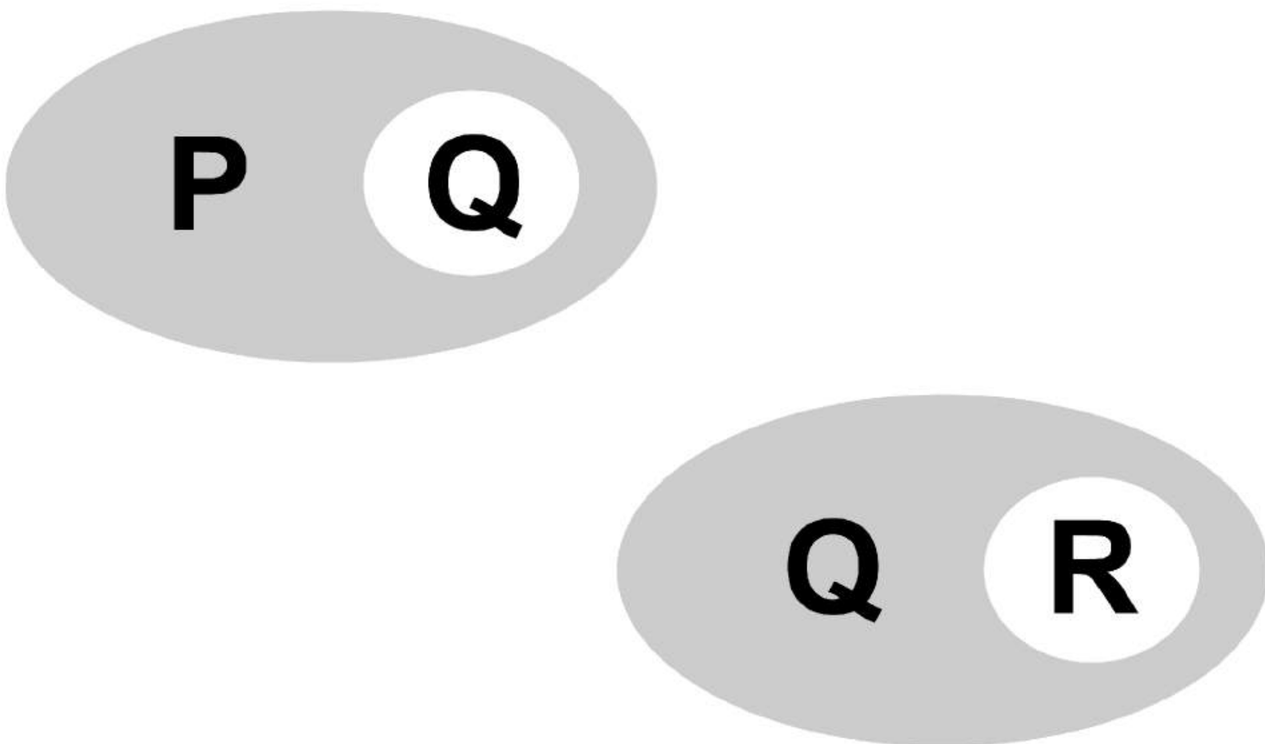
Hand-out on Existential Graphs, question 12



Premises

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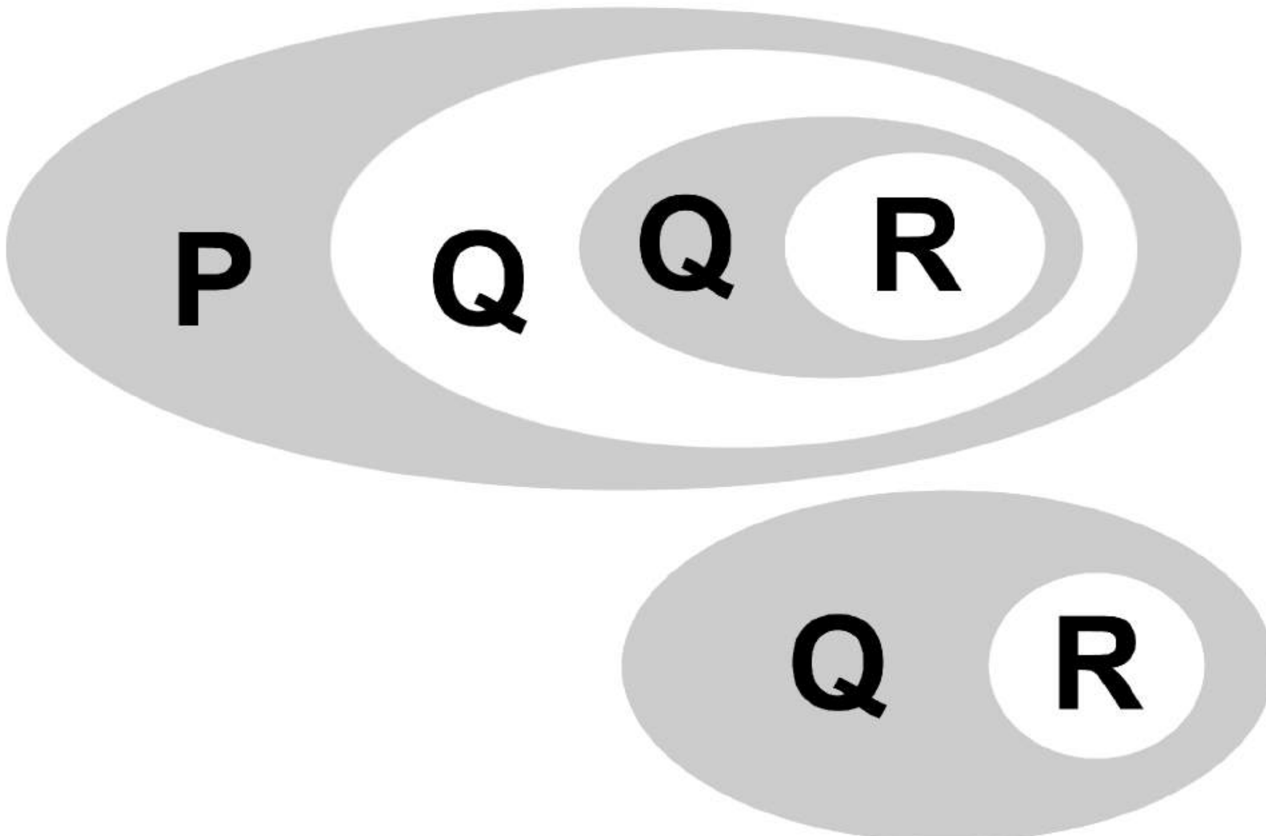
Hand-out on Existential Graphs, question 12



Iterate

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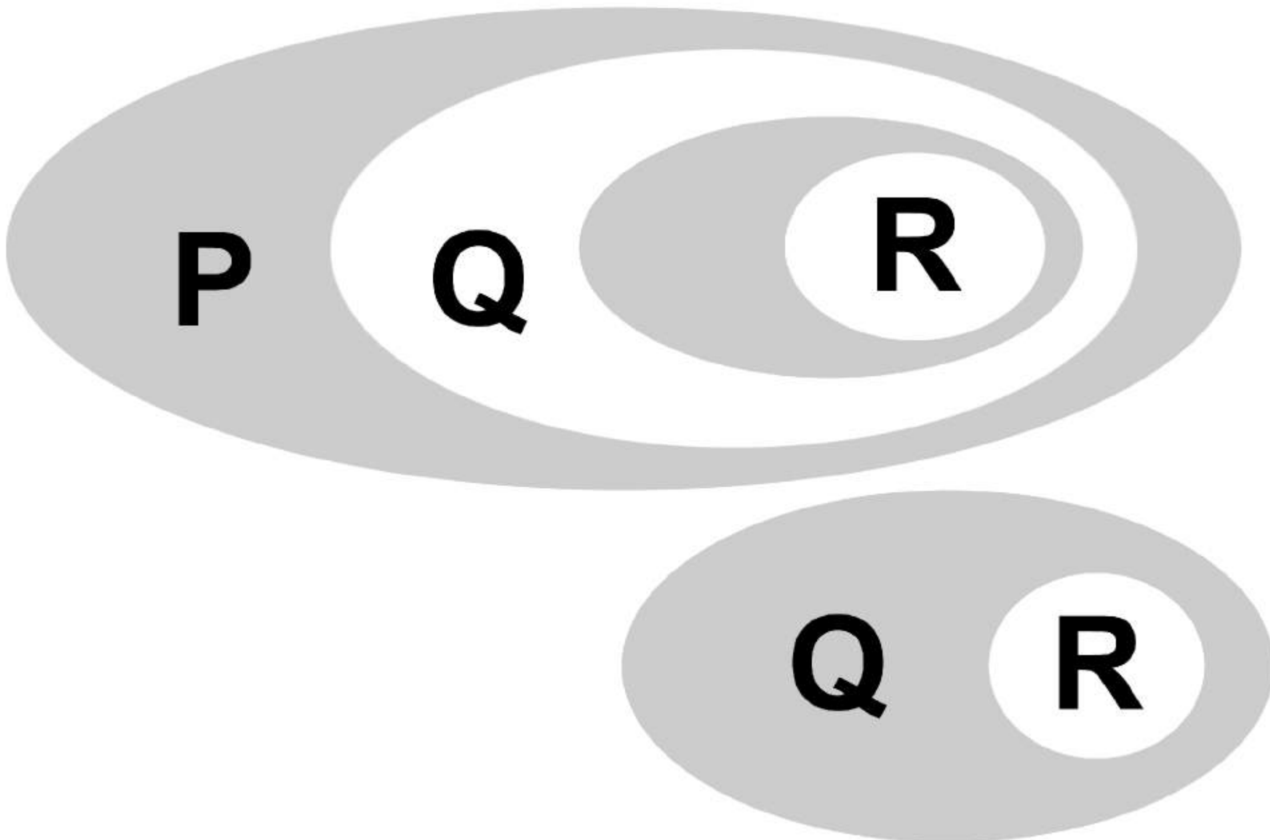
Hand-out on Existential Graphs, question 12



Deiterate

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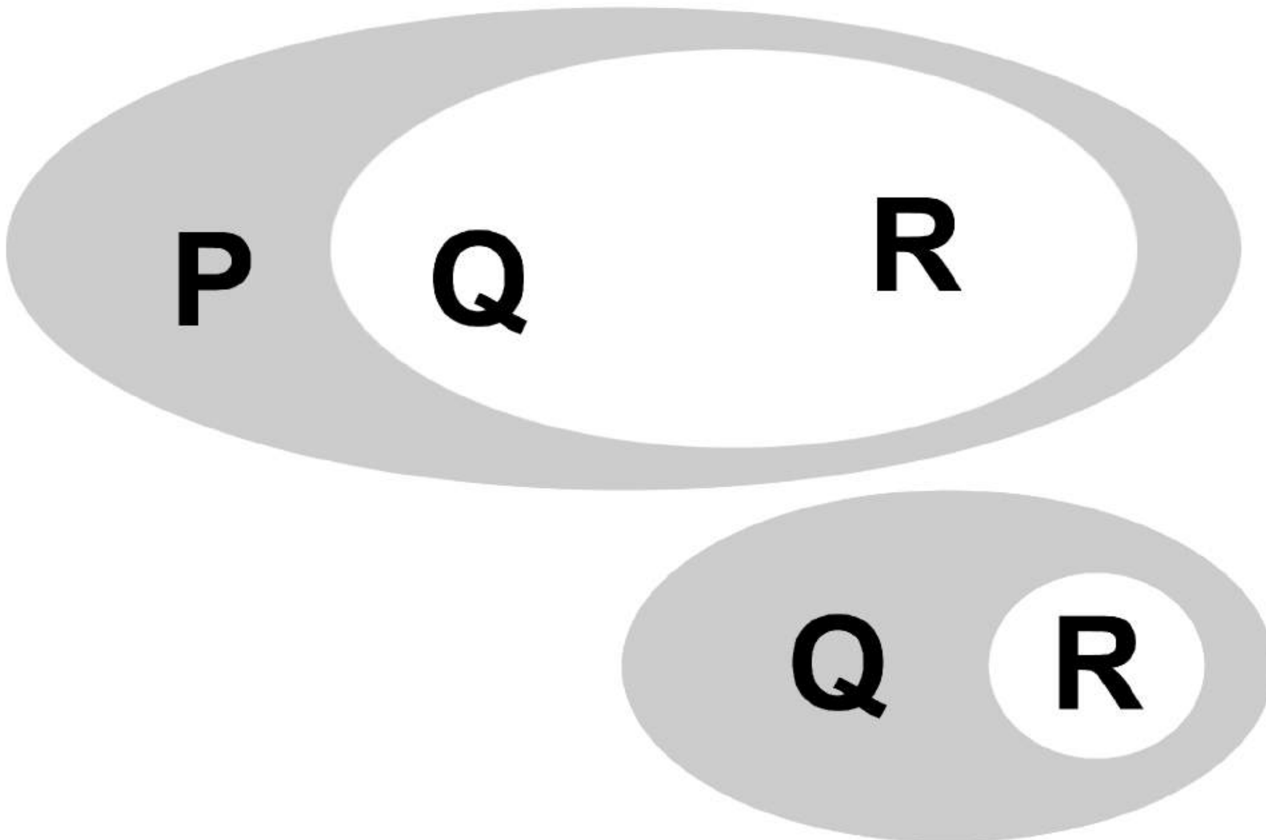
Hand-out on Existential Graphs, question 12



Double cut

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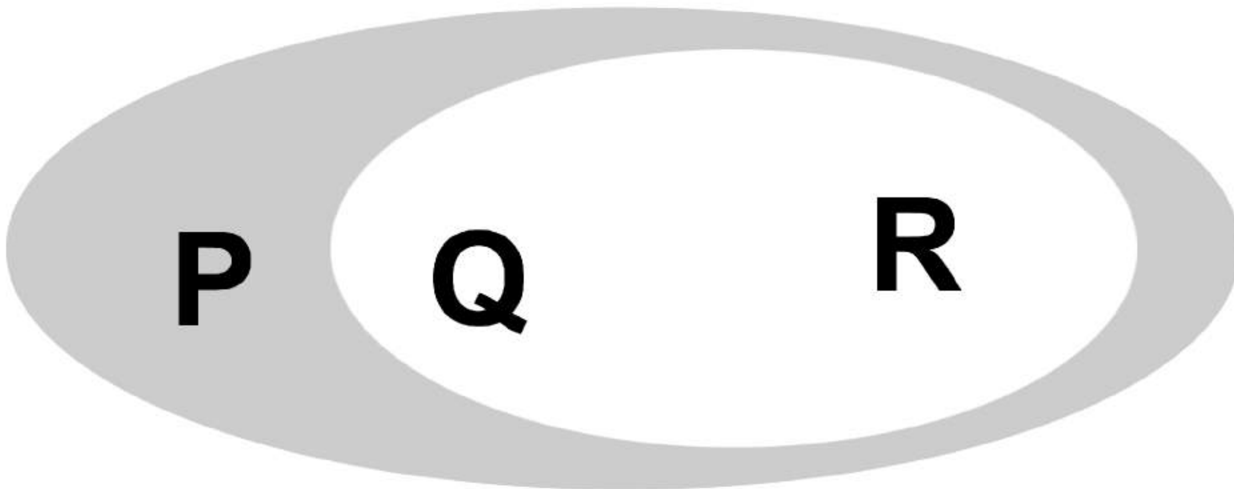
Hand-out on Existential Graphs, question 12



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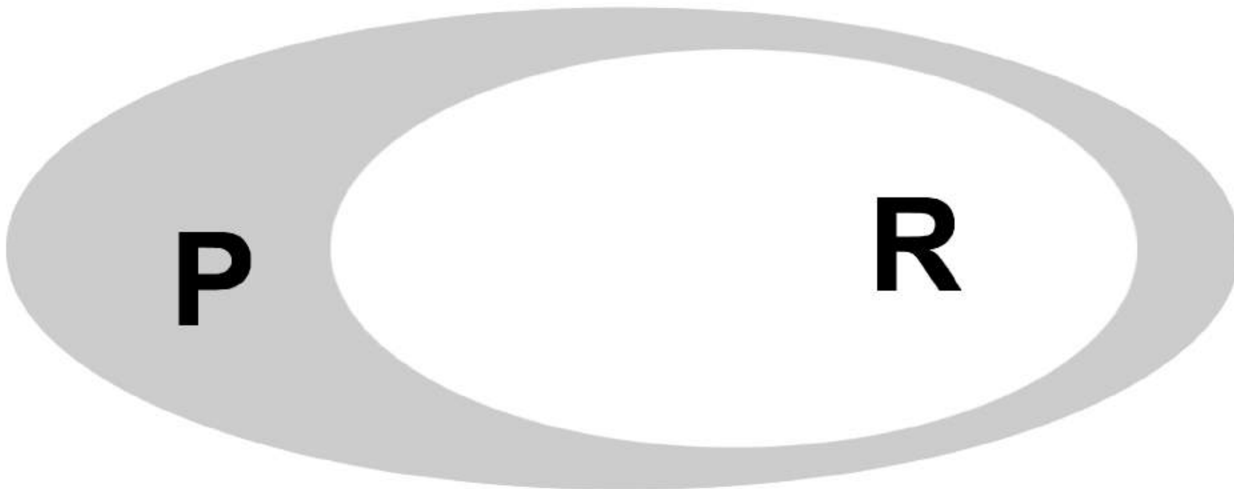
Hand-out on Existential Graphs, question 12



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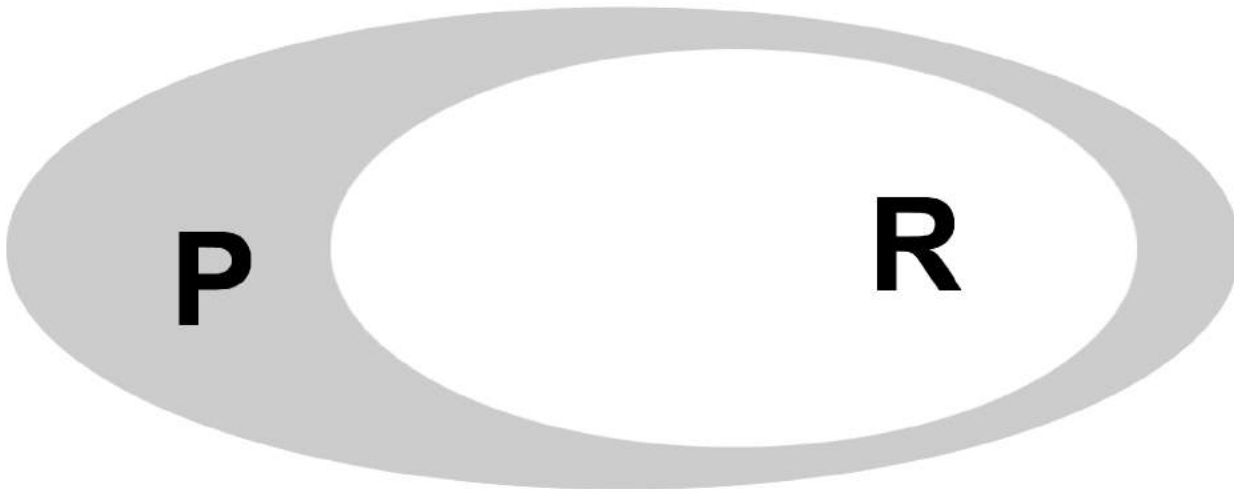
Hand-out on Existential Graphs, question 12



Conclusion

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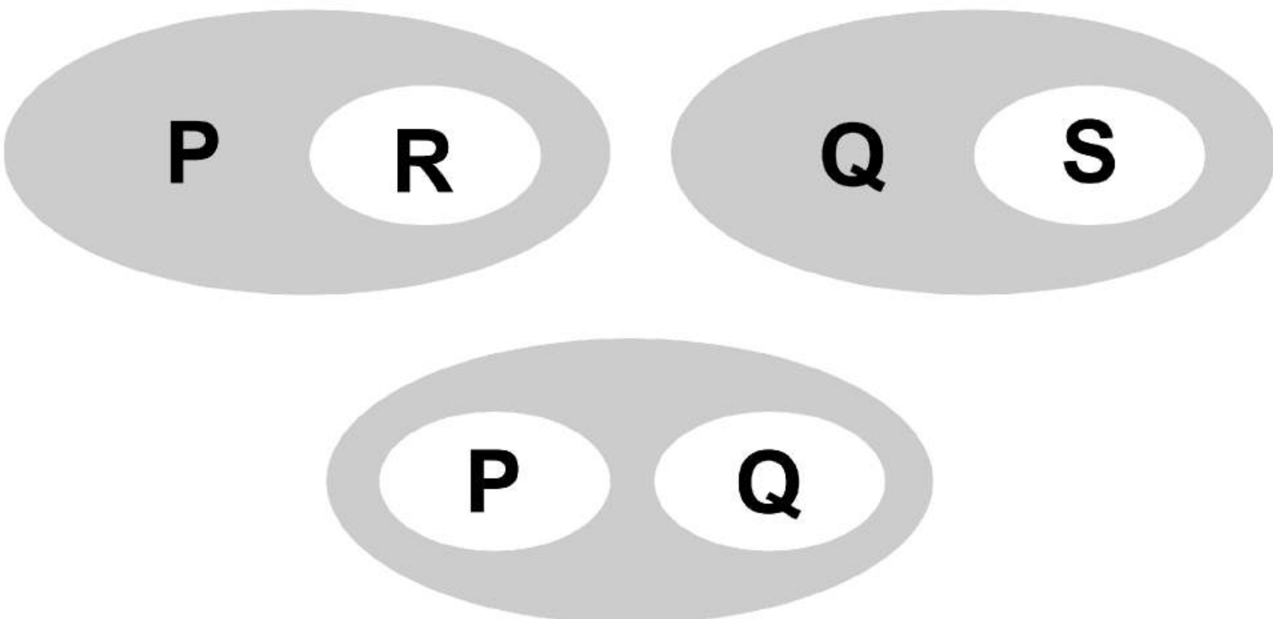
Hand-out on Existential Graphs, question 13



Premises

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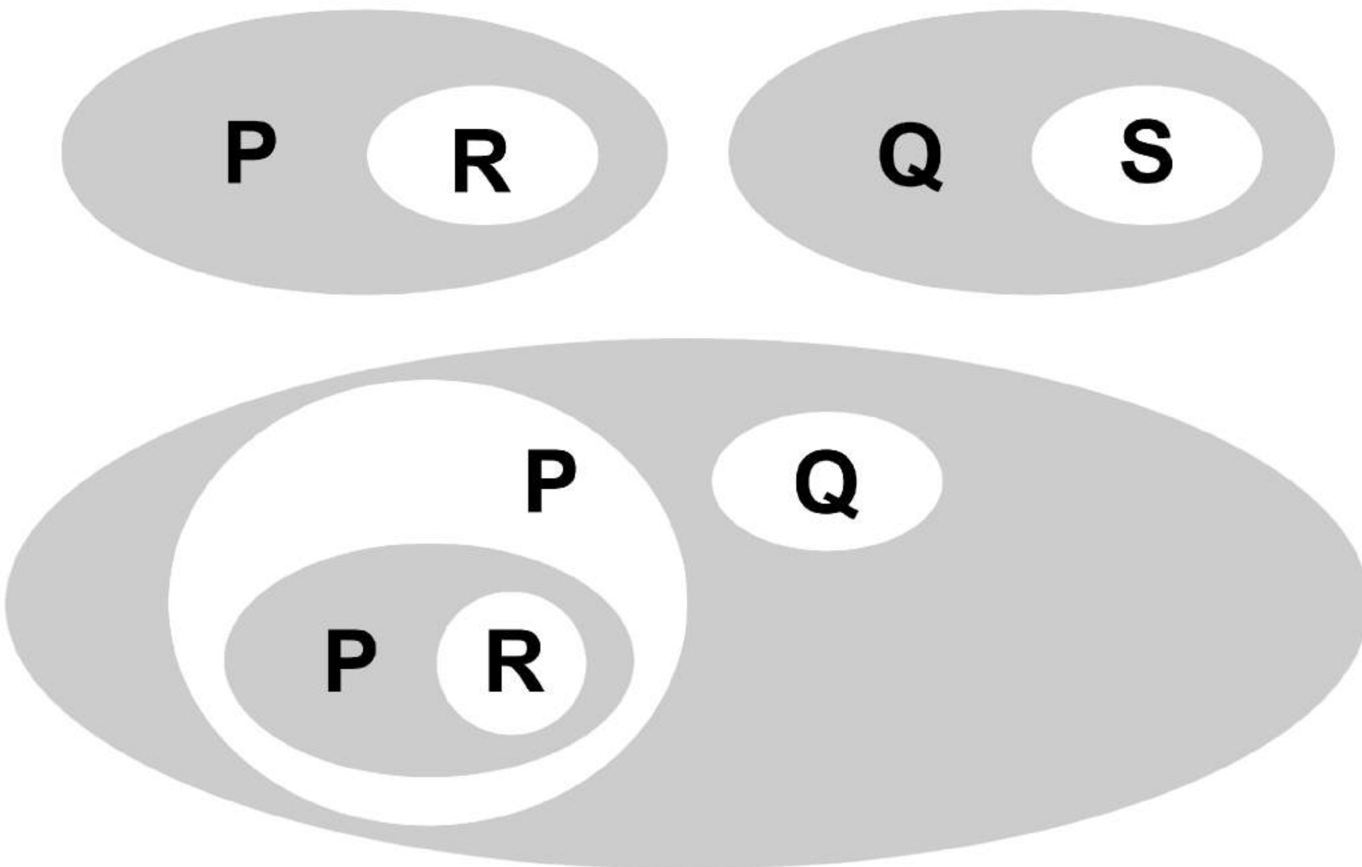
Hand-out on Existential Graphs, question 13



Iterate

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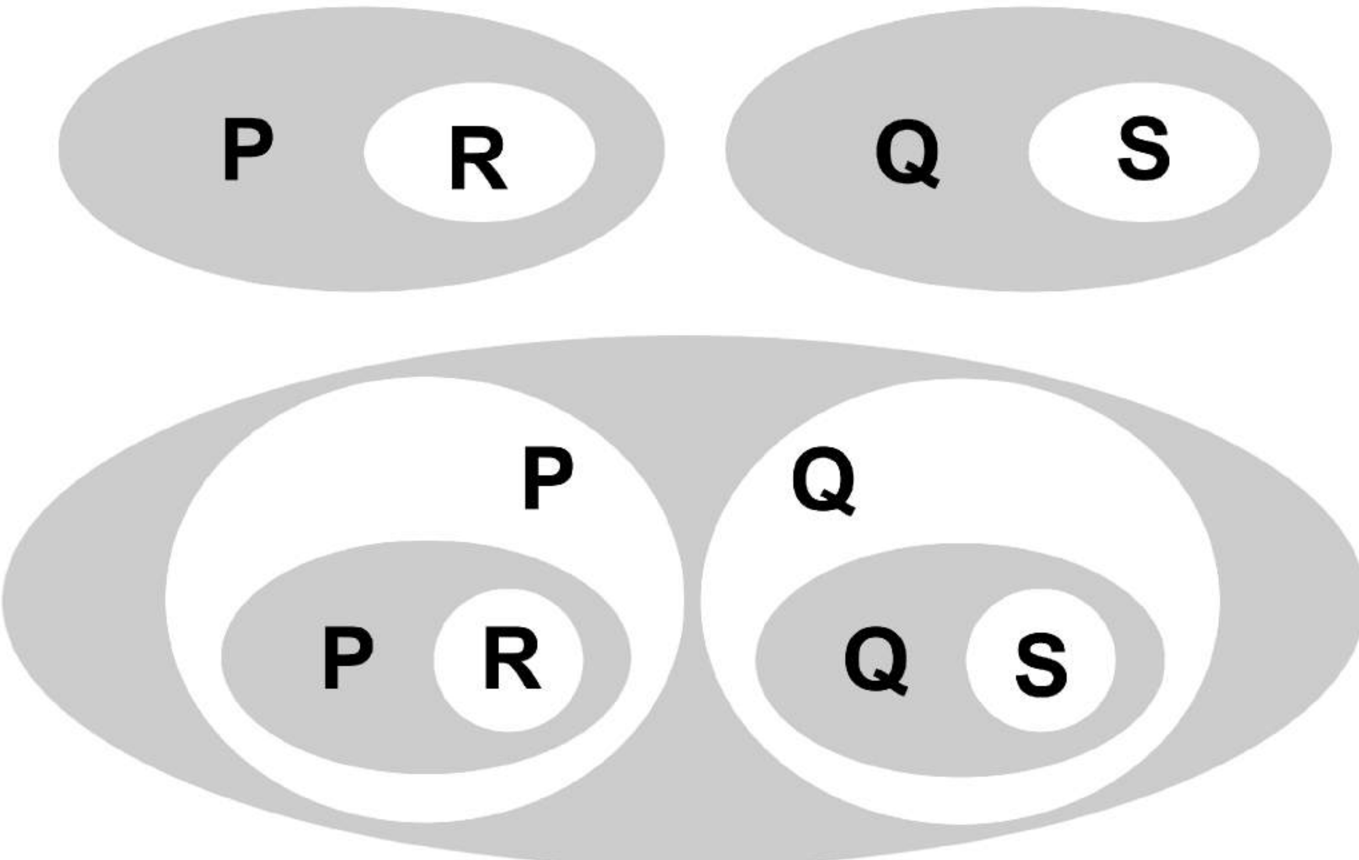
Hand-out on Existential Graphs, question 13



Iterate

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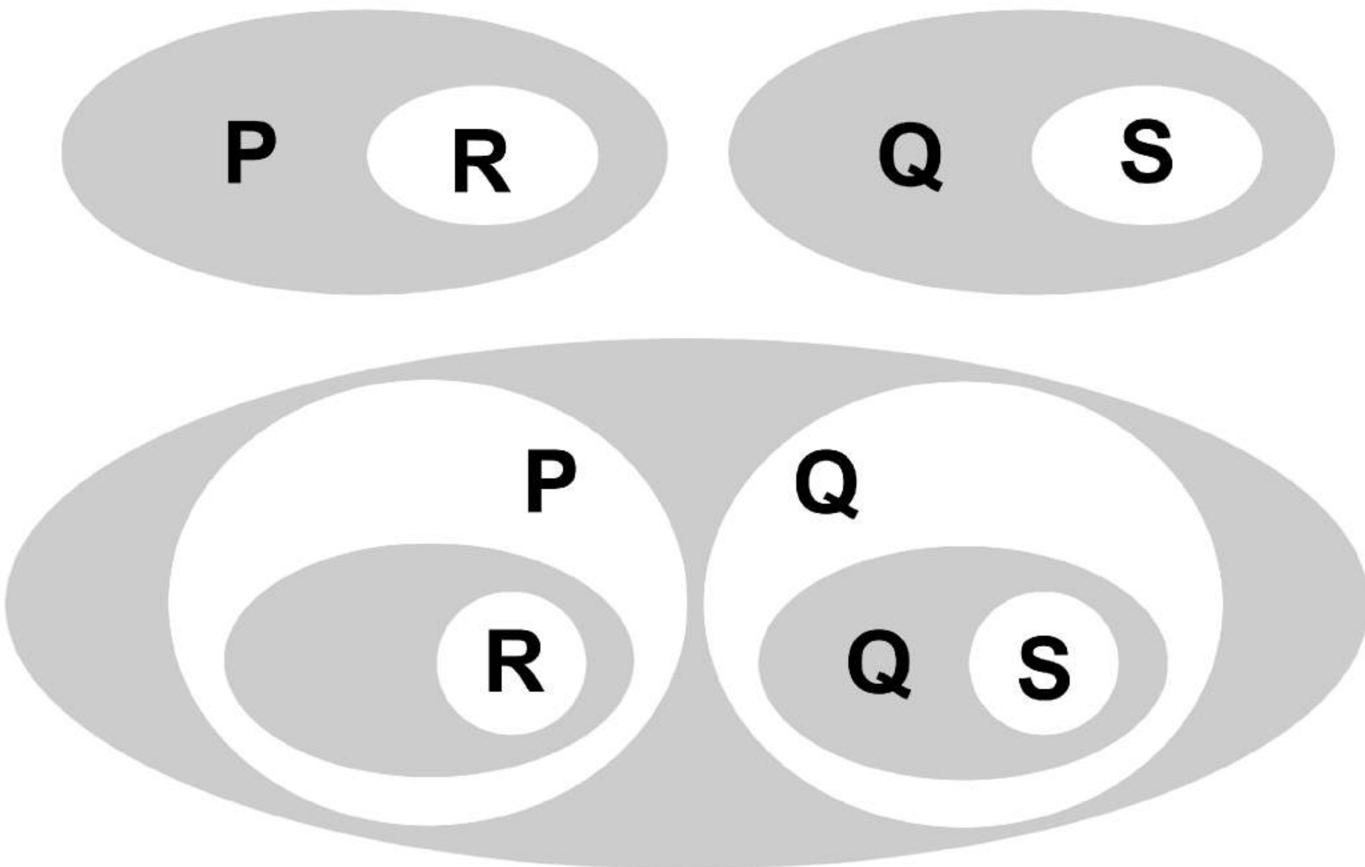
Hand-out on Existential Graphs, question 13



Deiterate

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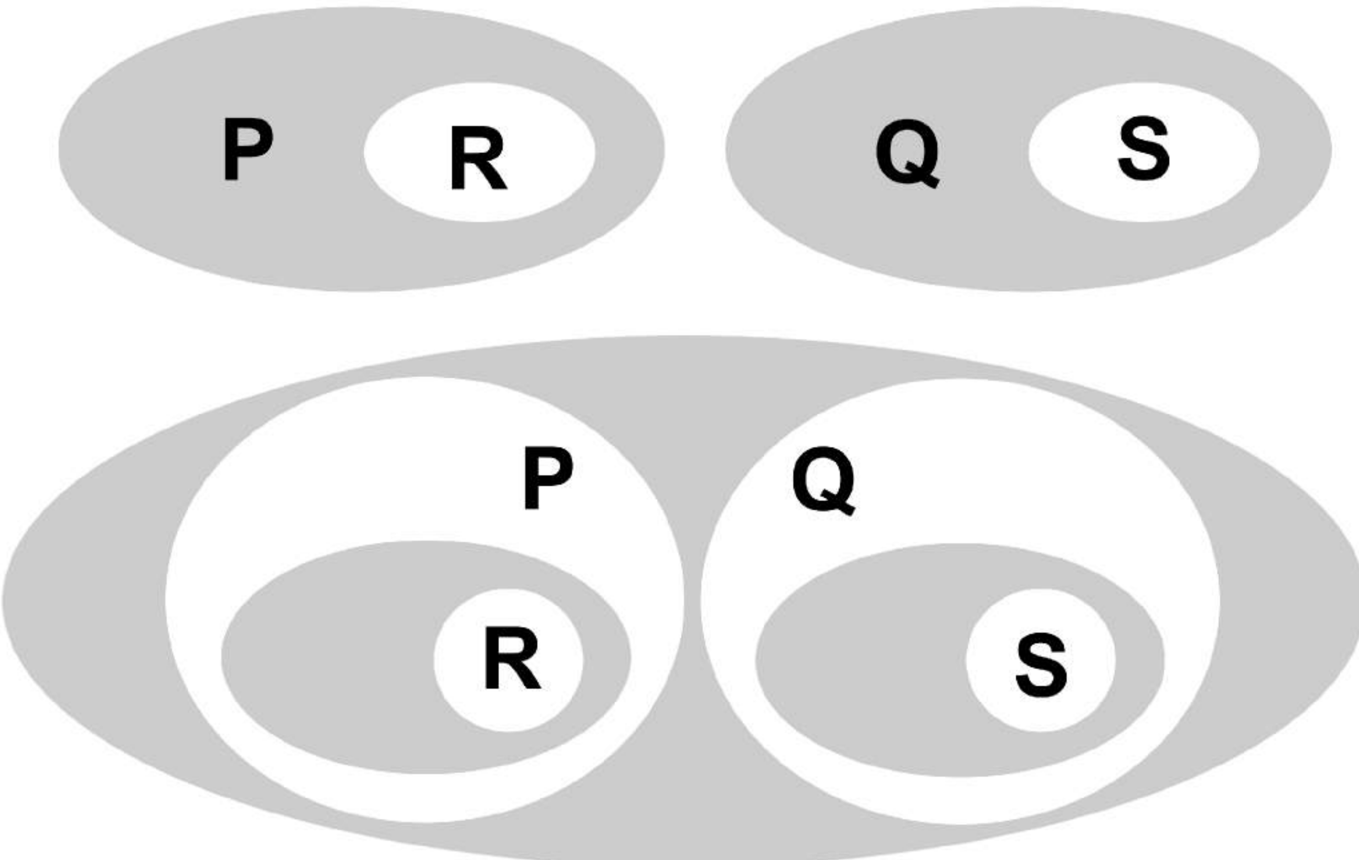
Hand-out on Existential Graphs, question 13



Deiterate

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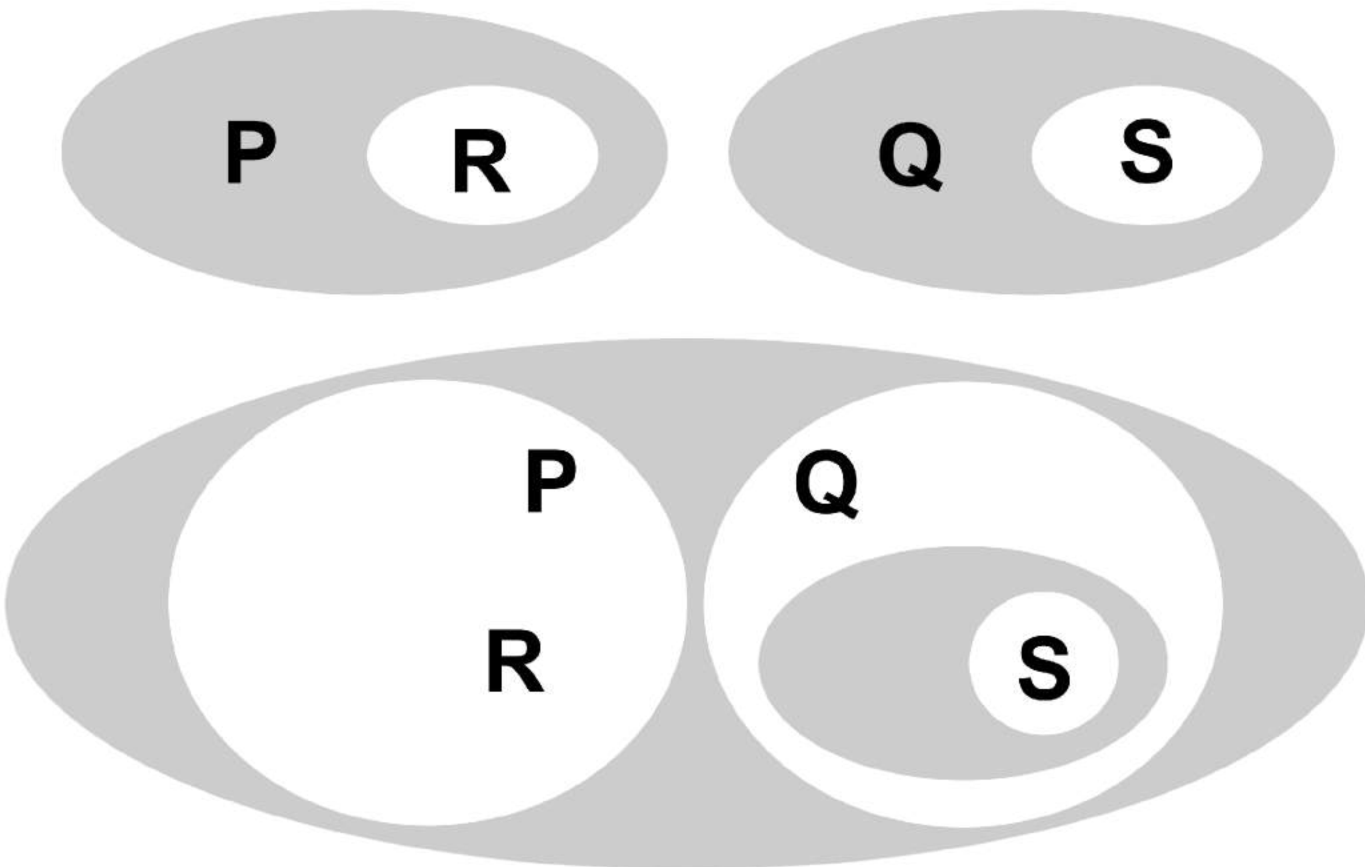
Hand-out on Existential Graphs, question 13



Double cut

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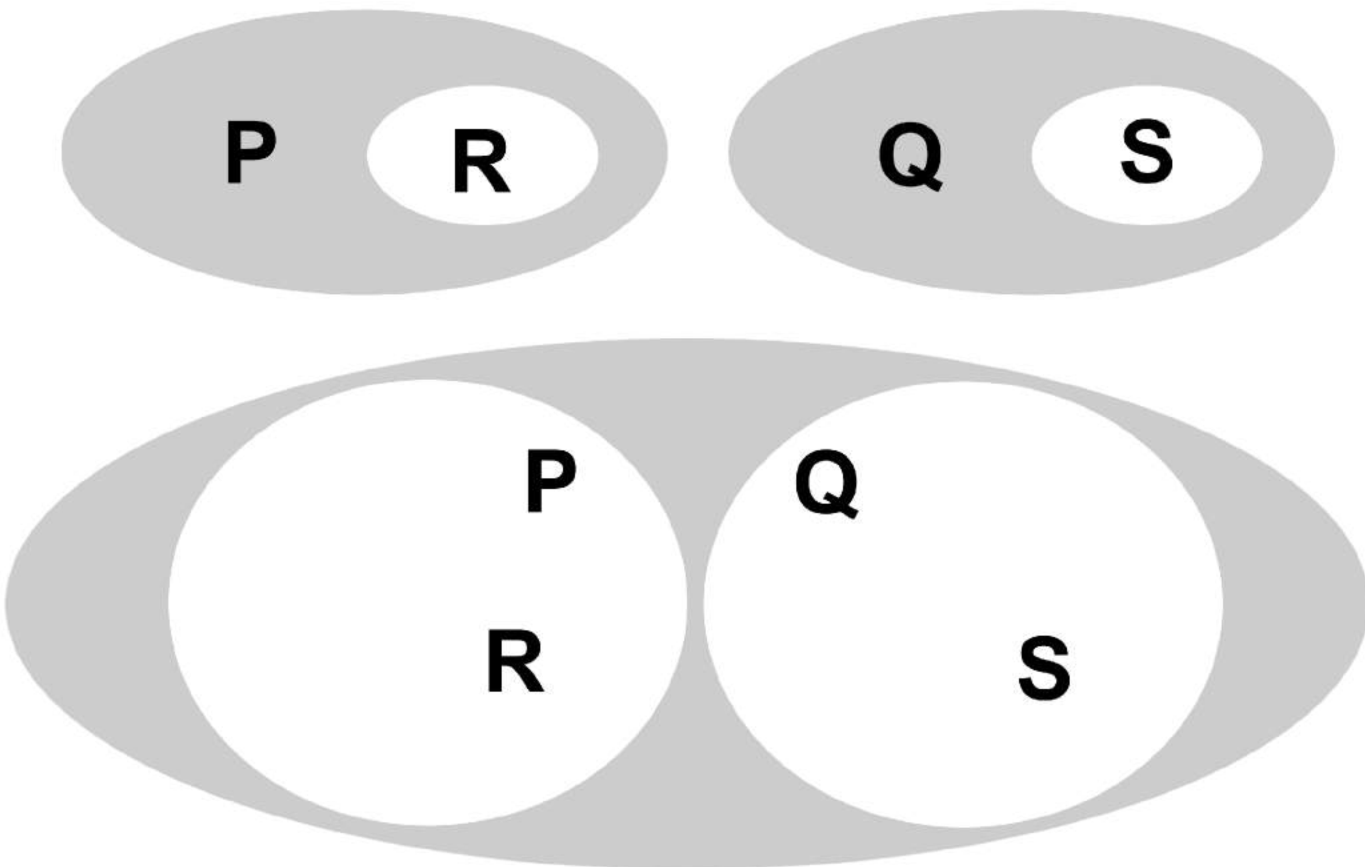
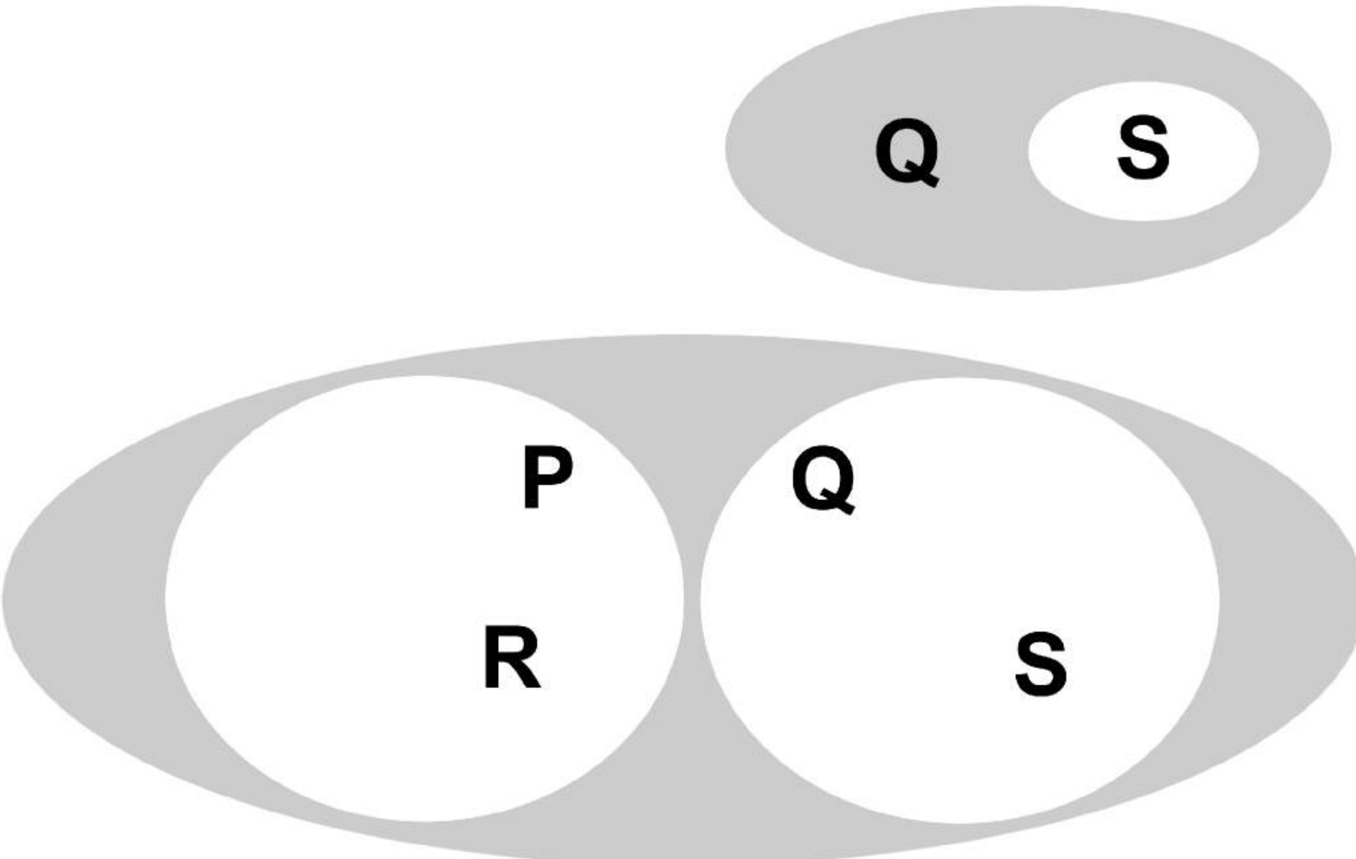
Hand-out on Existential Graphs, question 13



Double cut

Prepared by Dr. Marc Champagne for PHIL 1150

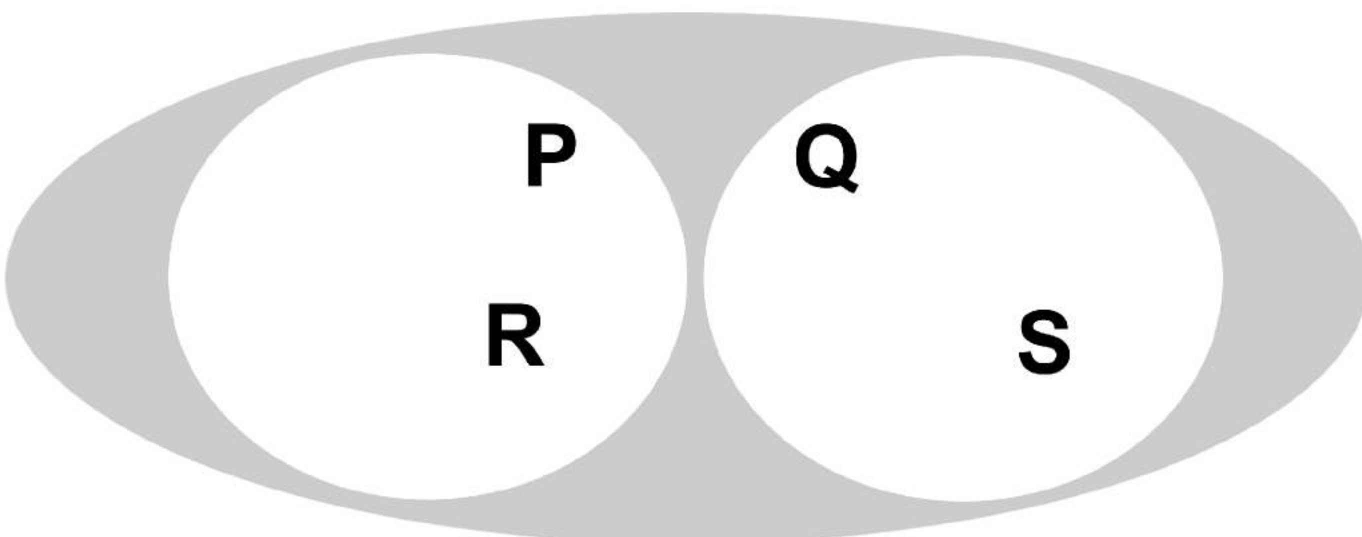
Hand-out on Existential Graphs, question 13



Erase

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 13



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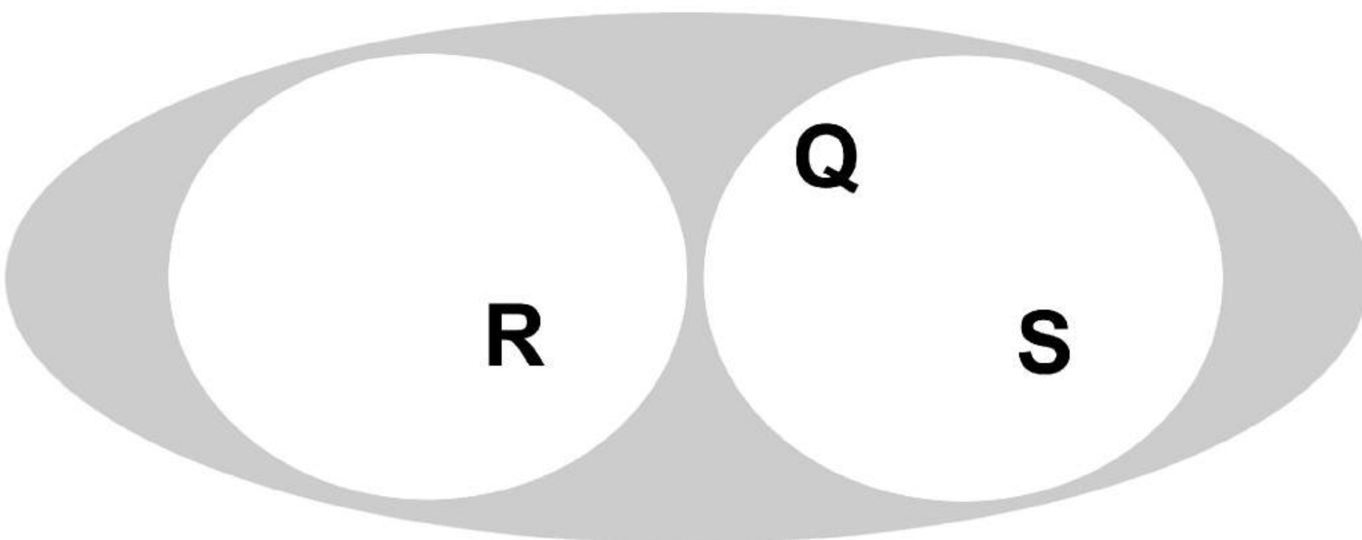
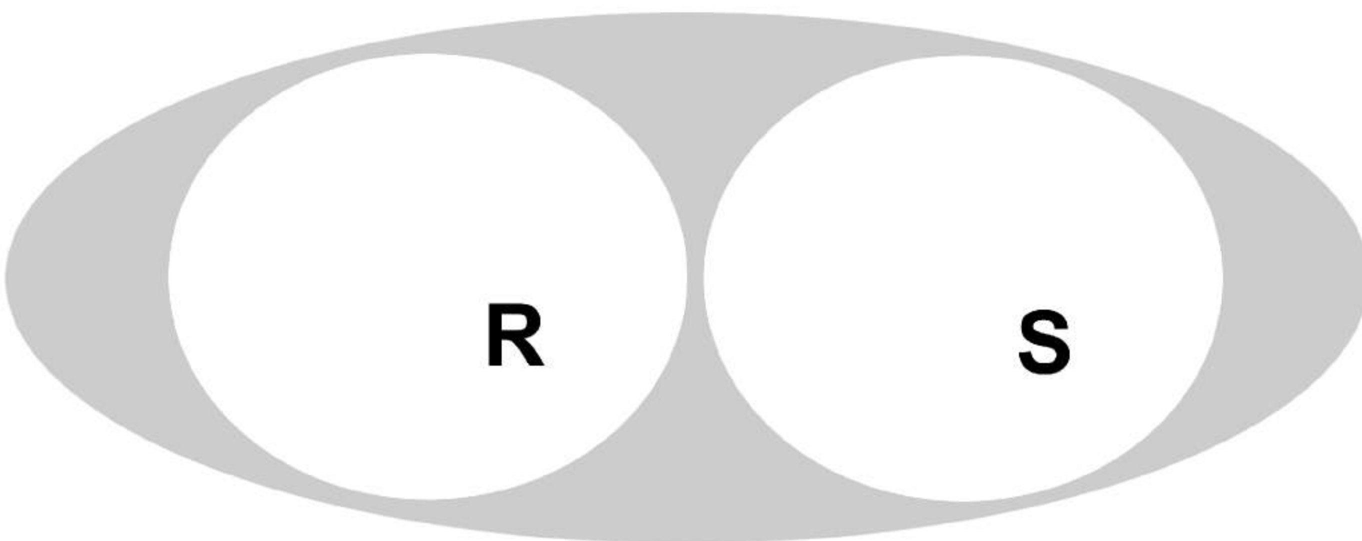
Hand-out on Existential Graphs, question 13



Erase

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 13



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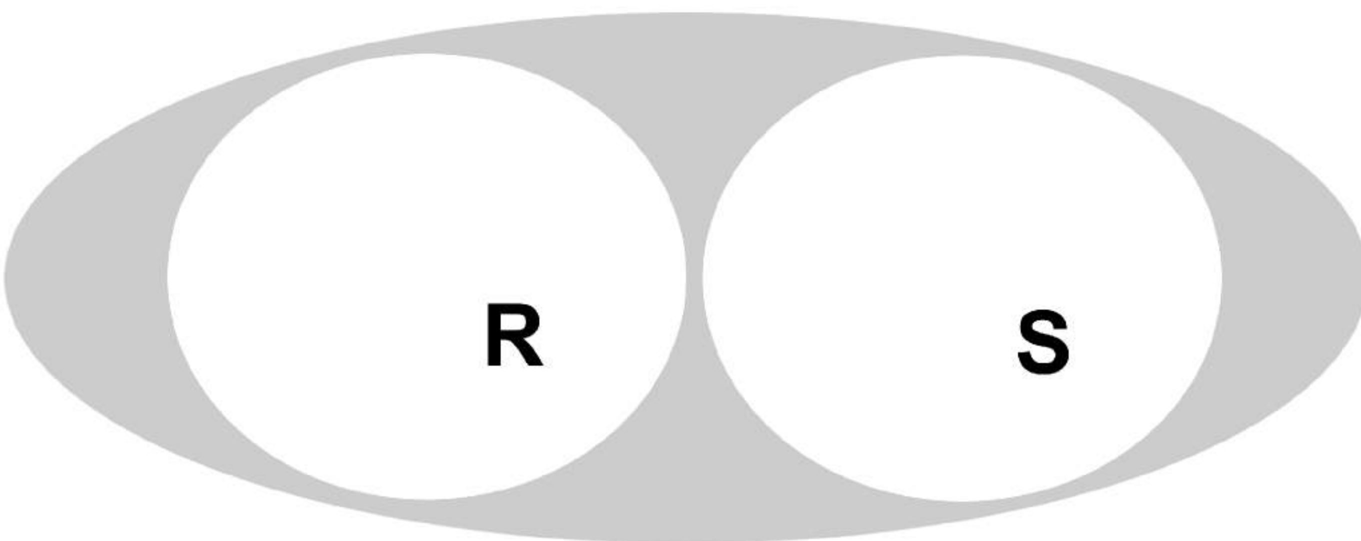
Prepared by Dr. Marc Champagne for PHIL 1150

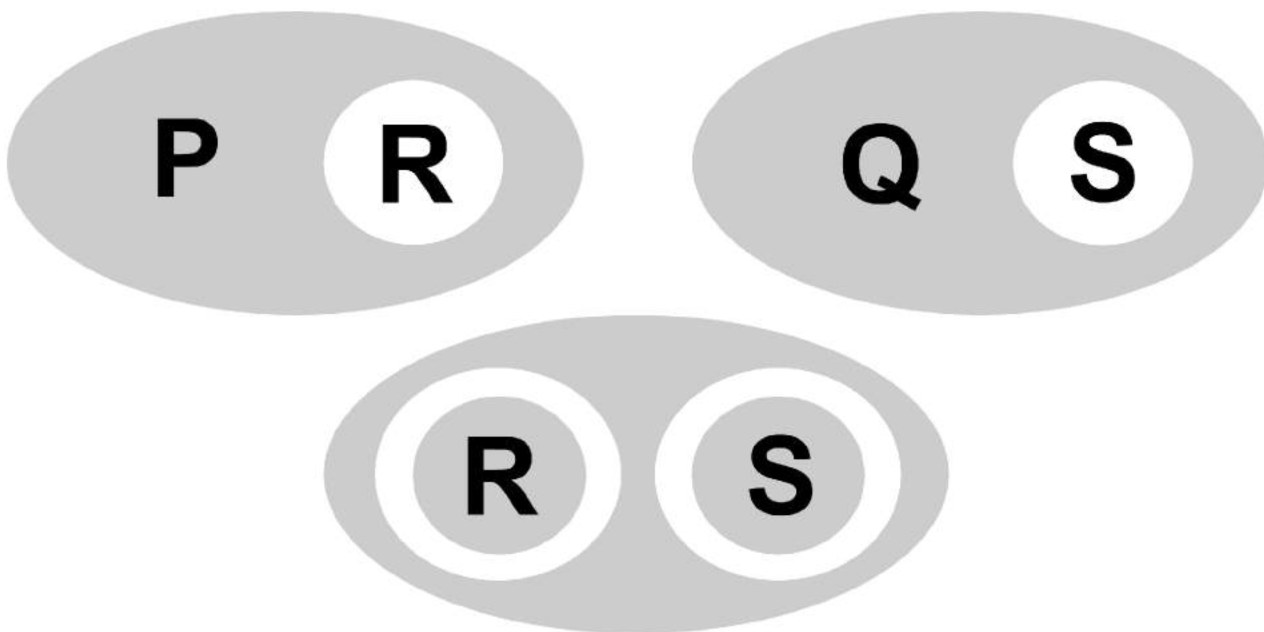
Hand-out on Existential Graphs, question 13



Conclusion

Prepared by Dr. Marc Champagne for PHIL 1150

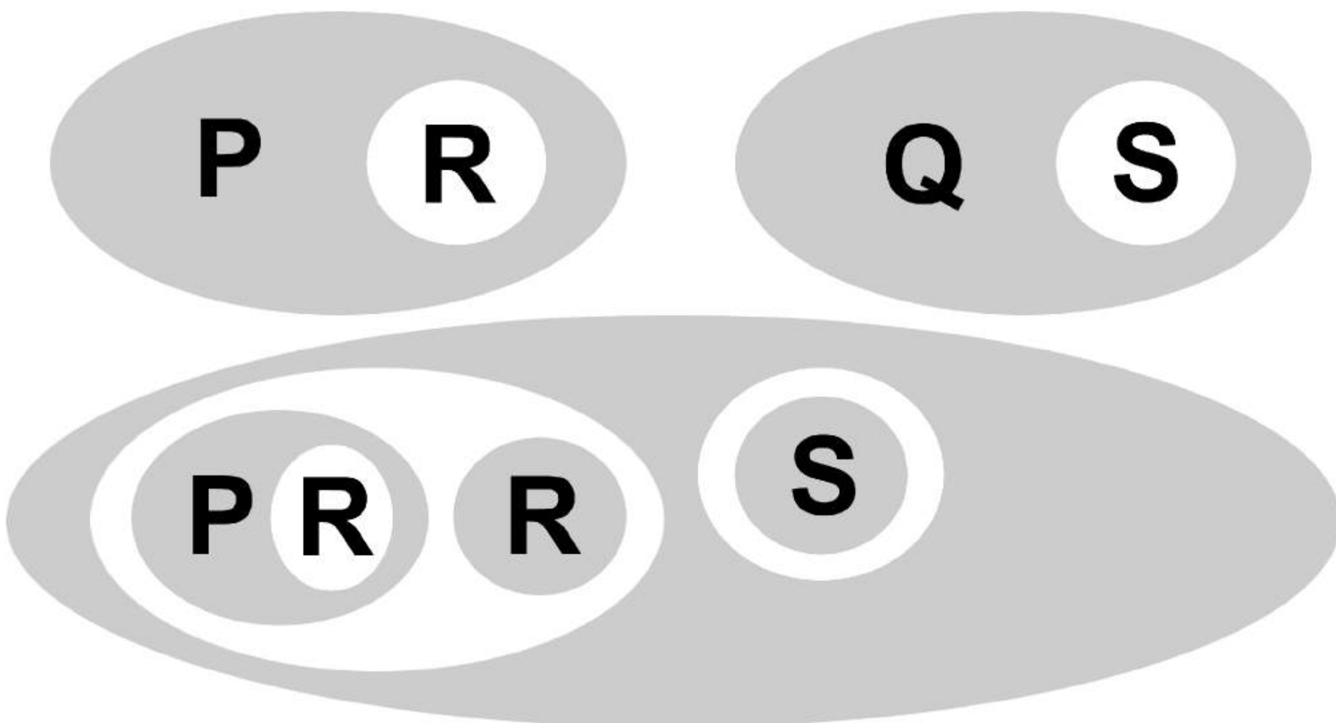
Hand-out on Existential Graphs, question 14



Premises

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 14



Iterate

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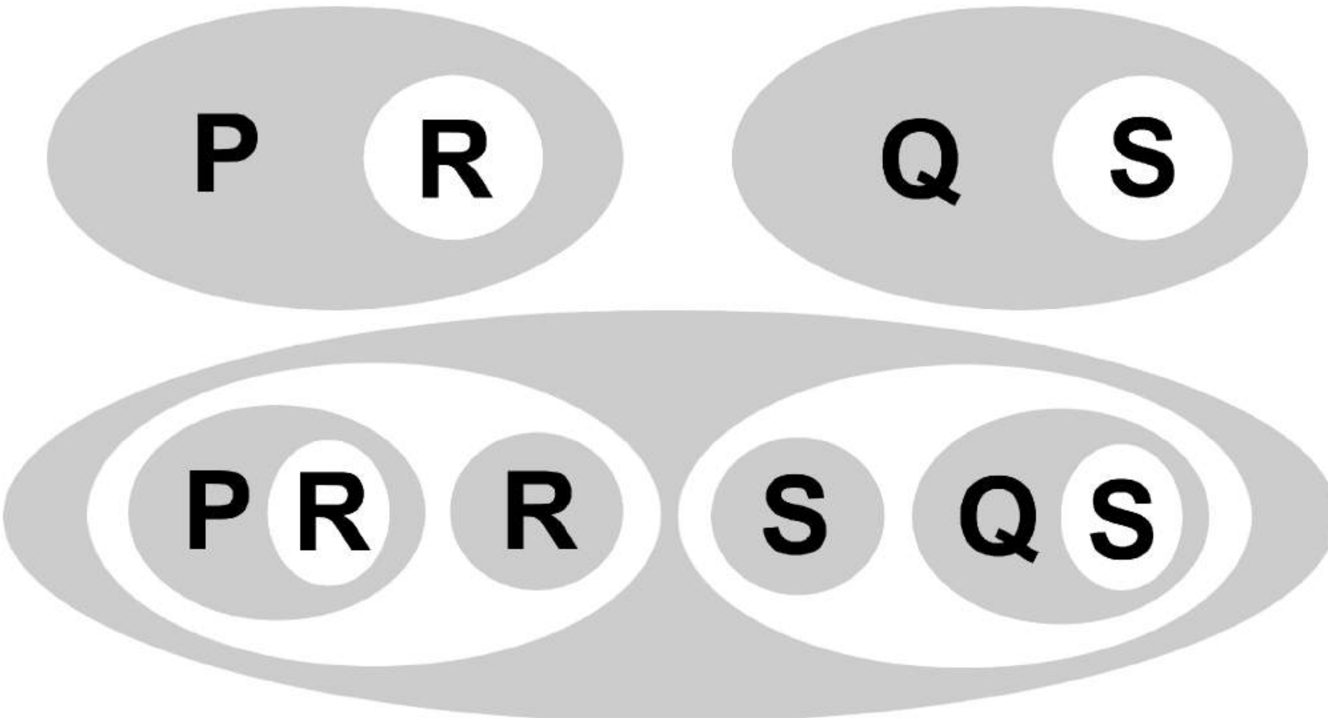
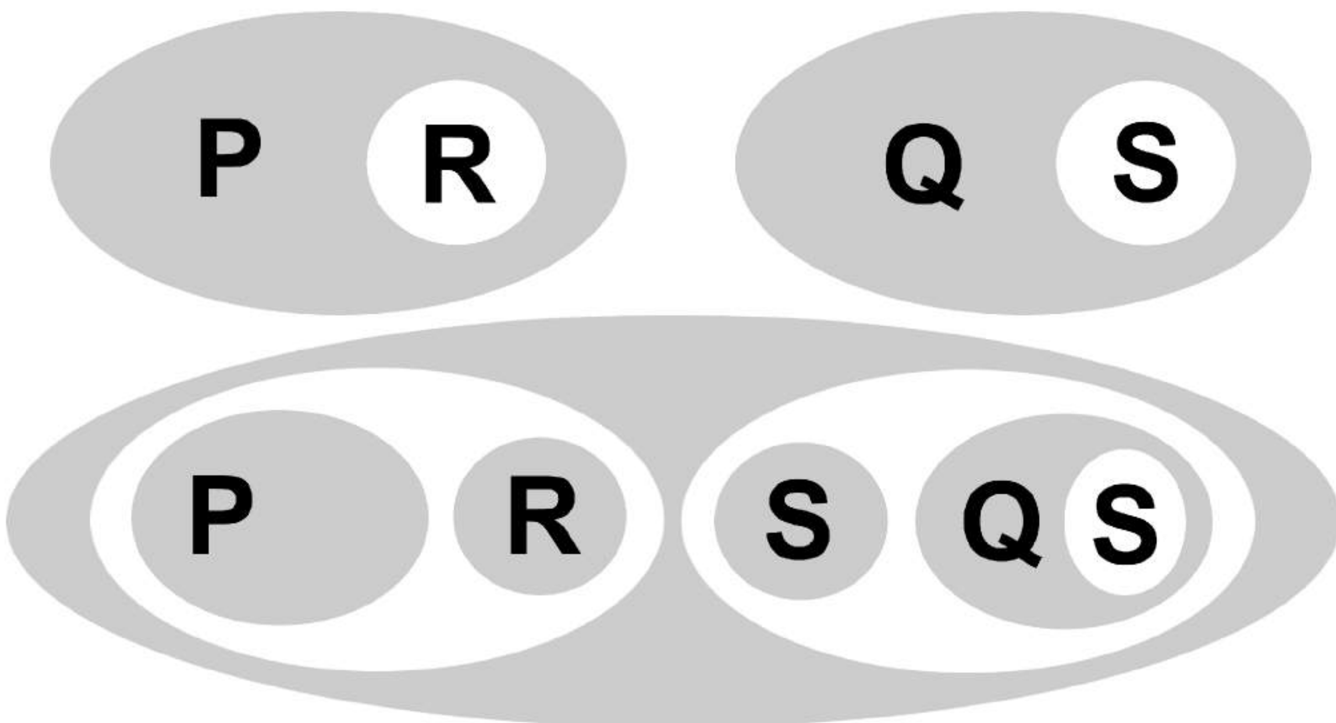
Hand-out on Existential Graphs, question 14



Iterate

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 14



Deiterate

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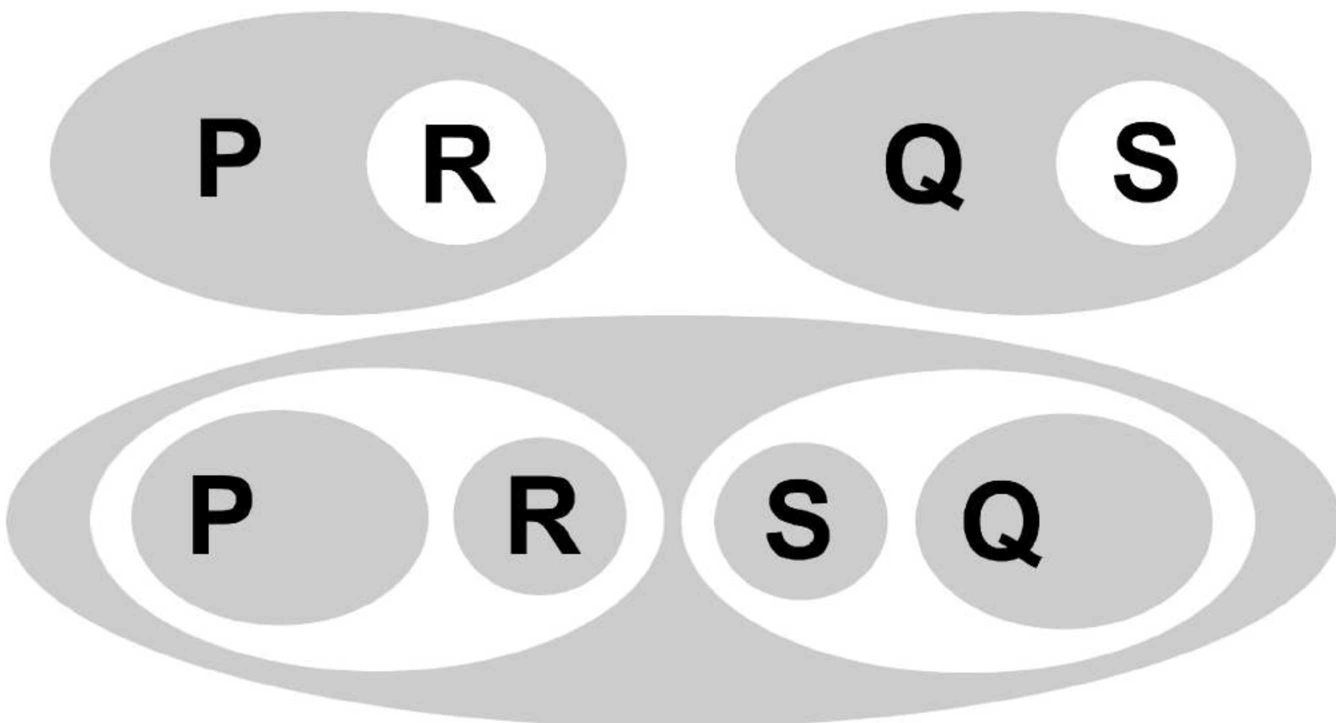
Hand-out on Existential Graphs, question 14



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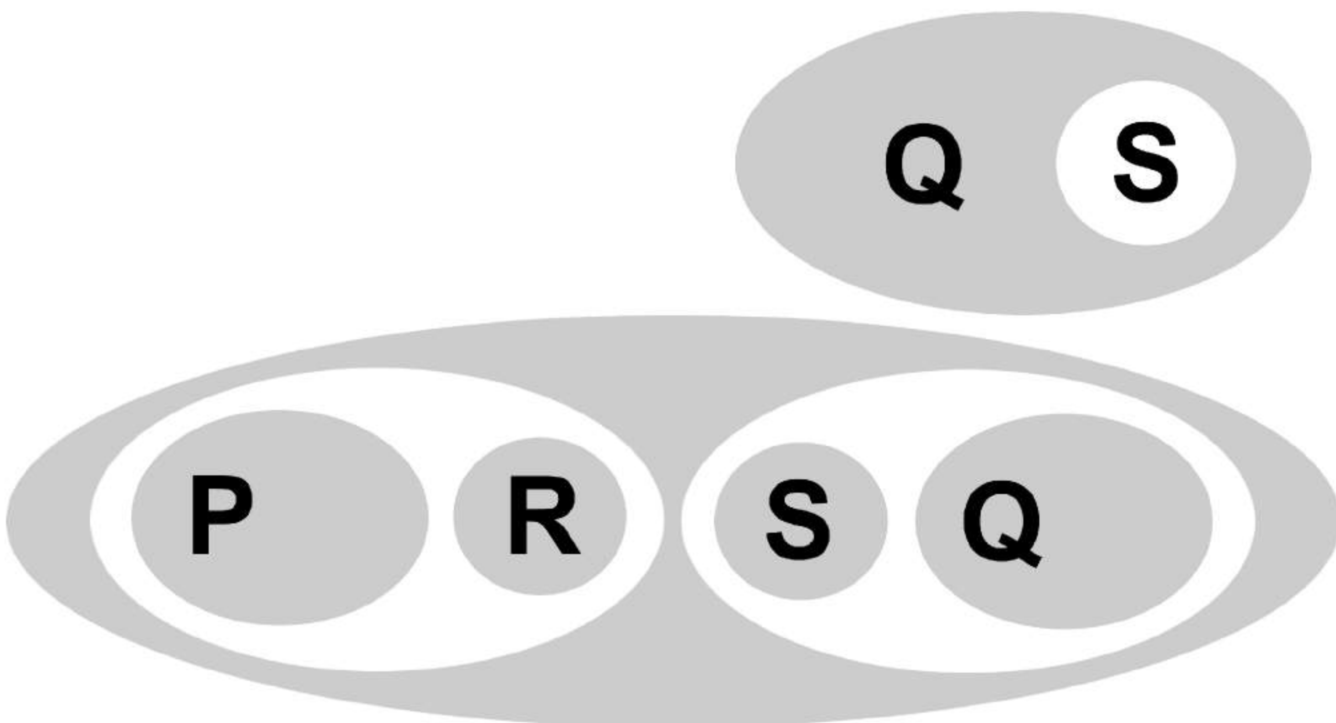
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 14



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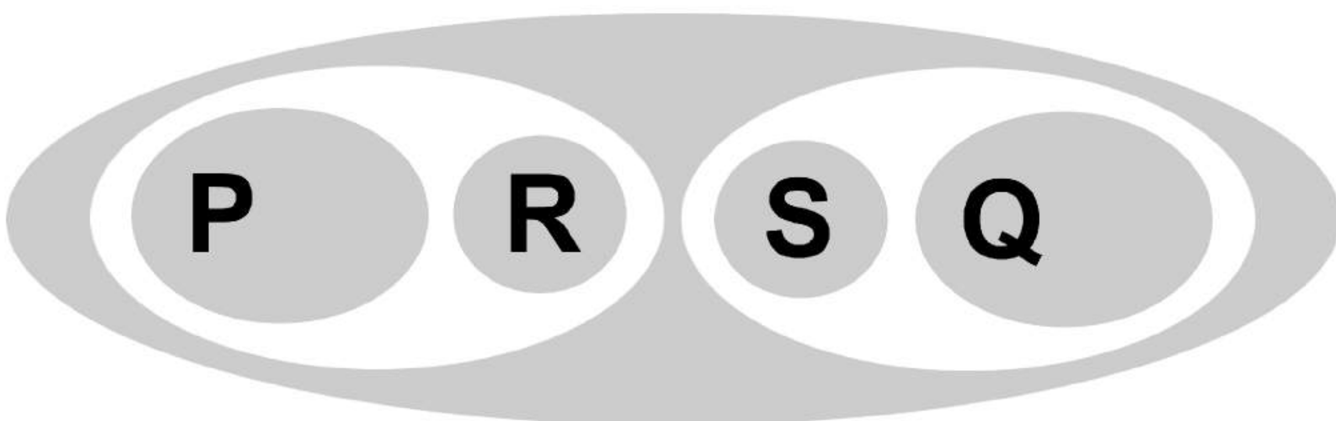
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 14



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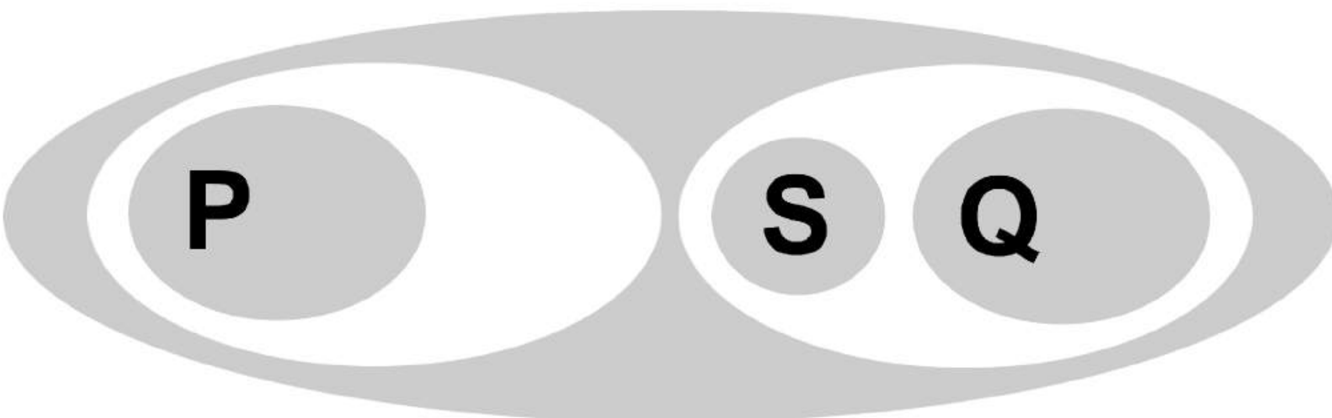
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 14



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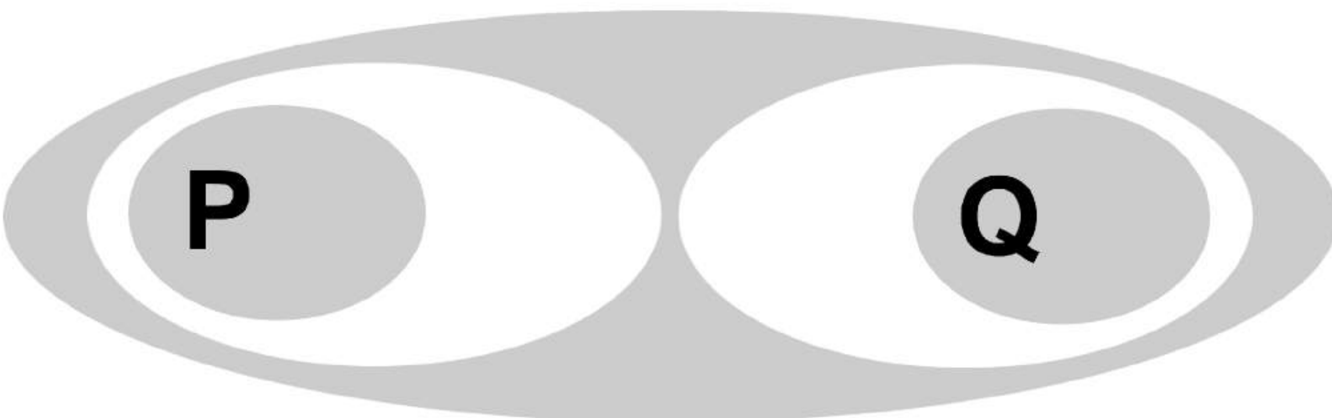
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 14



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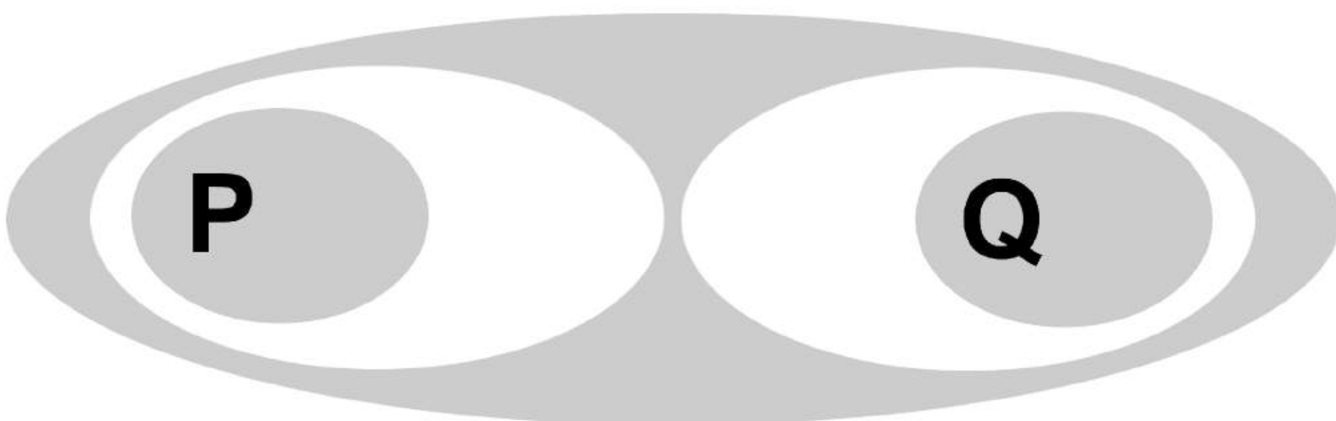
Prepared by Dr. Marc Champagne for PHIL 1150

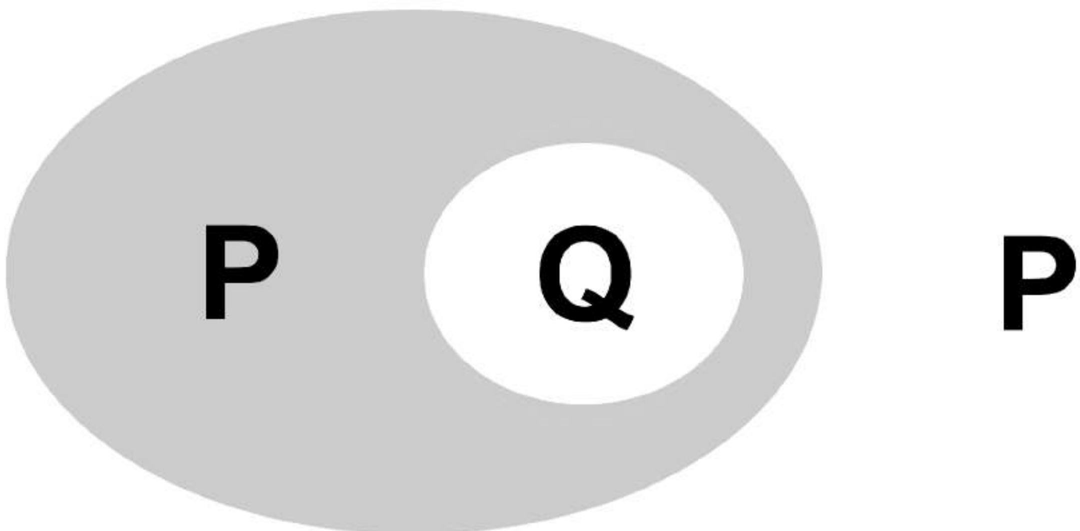
Hand-out on Existential Graphs, question 14



Conclusion

Prepared by Dr. Marc Champagne for PHIL 1150

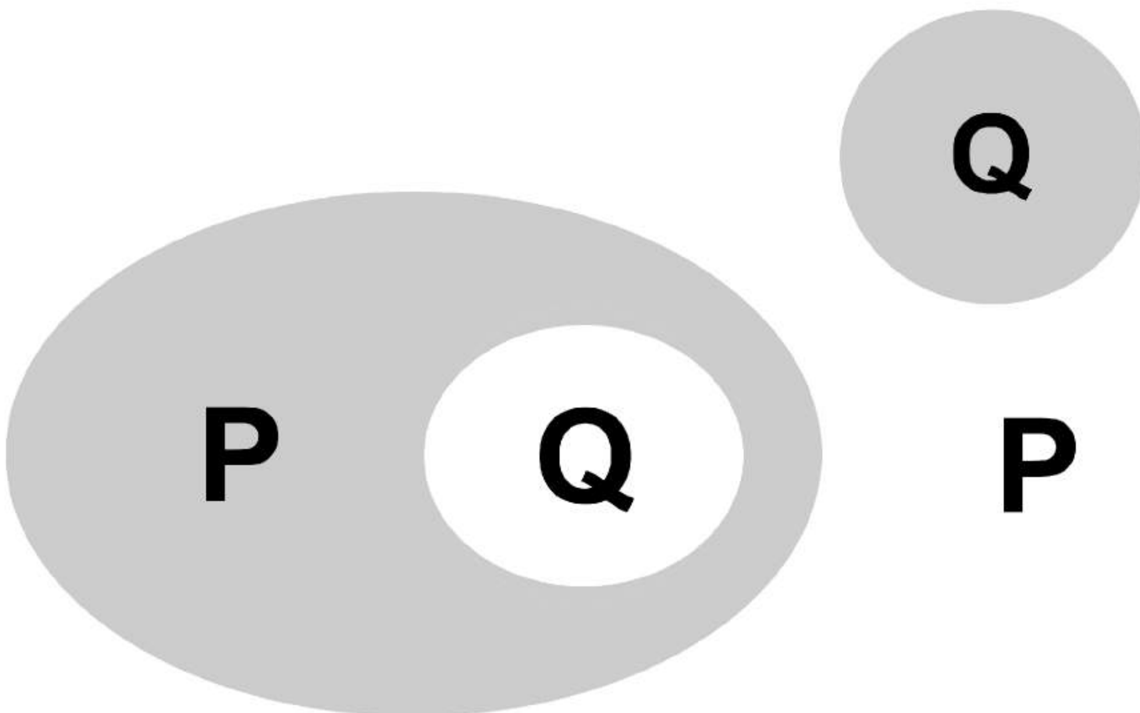
Hand-out on Existential Graphs, question 15



Premises

Prepared by Dr. Marc Champagne for PHIL 1150

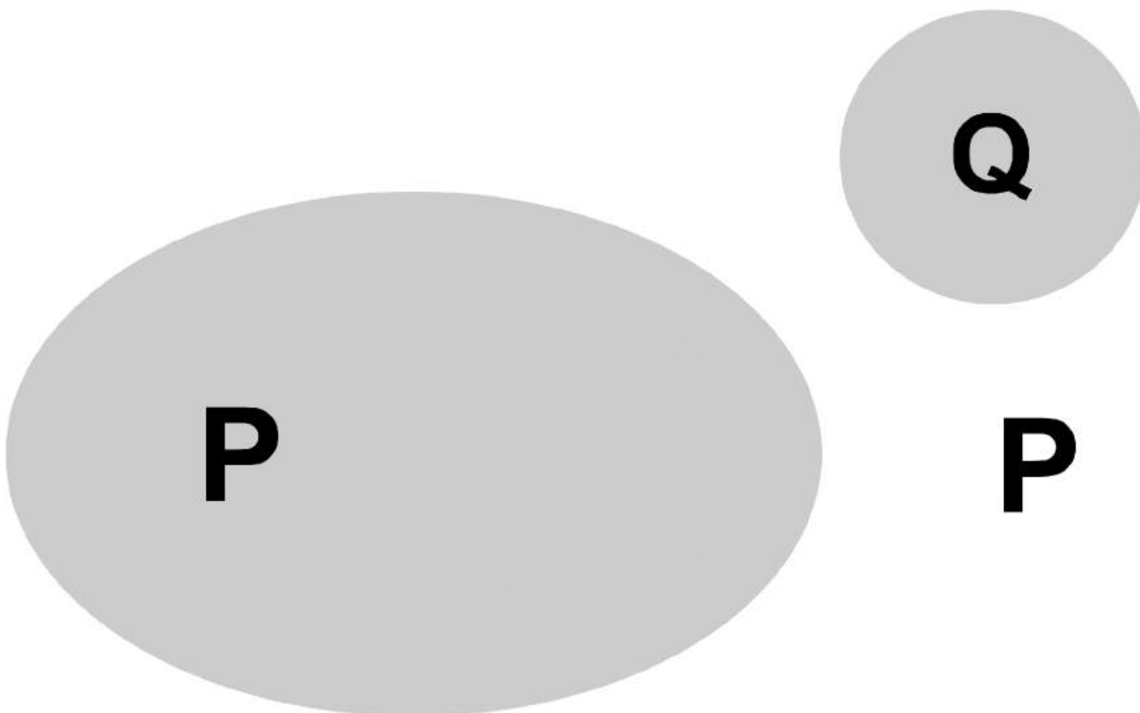
Hand-out on Existential Graphs, question 15



Negated conclusion

Prepared by Dr. Marc Champagne for PHIL 1150

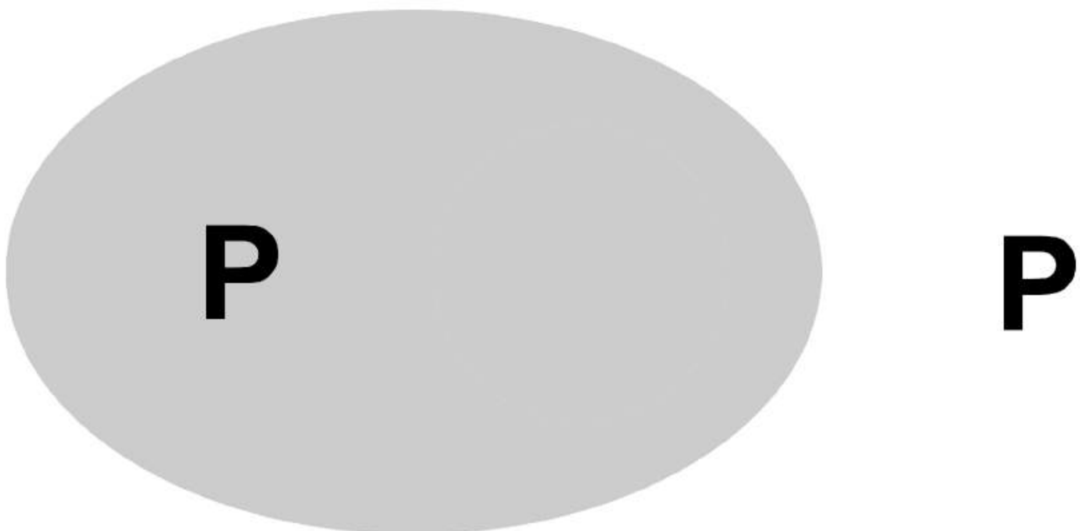
Hand-out on Existential Graphs, question 15



Deiterate

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 15



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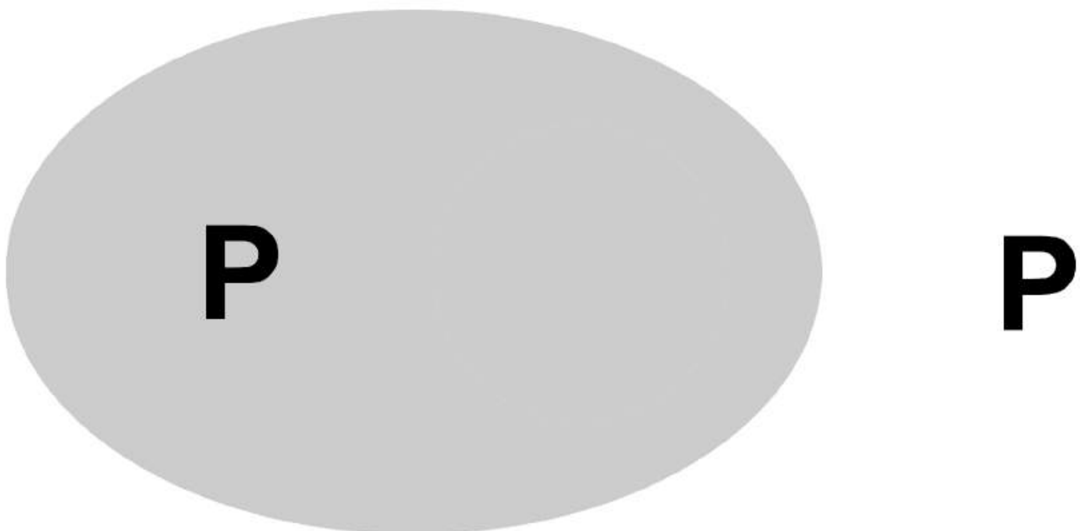
Prepared by Dr. Marc Champagne for PHIL 1150

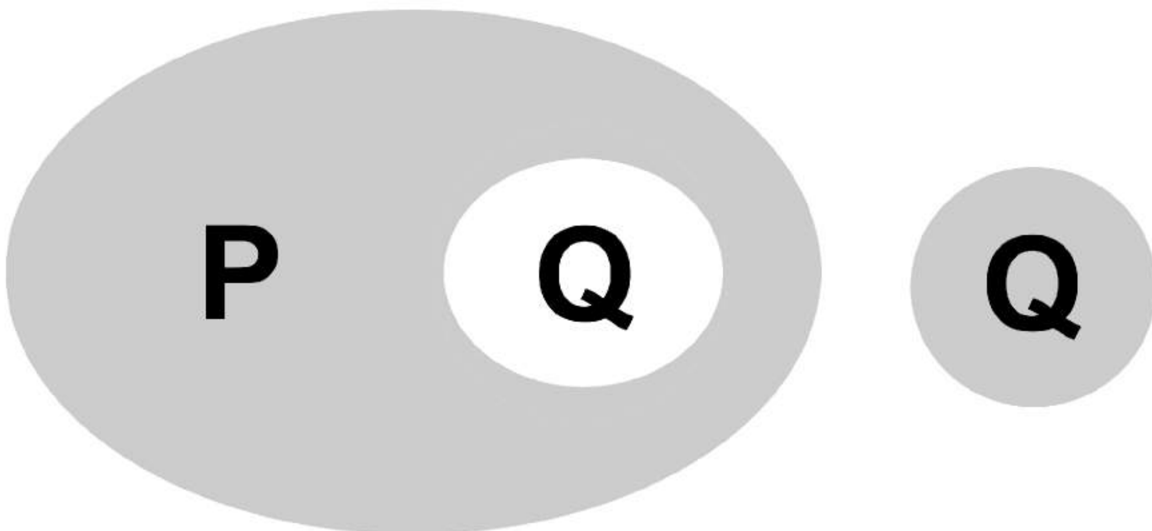
Hand-out on Existential Graphs, question 15



Contrapiction

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 16



Premises

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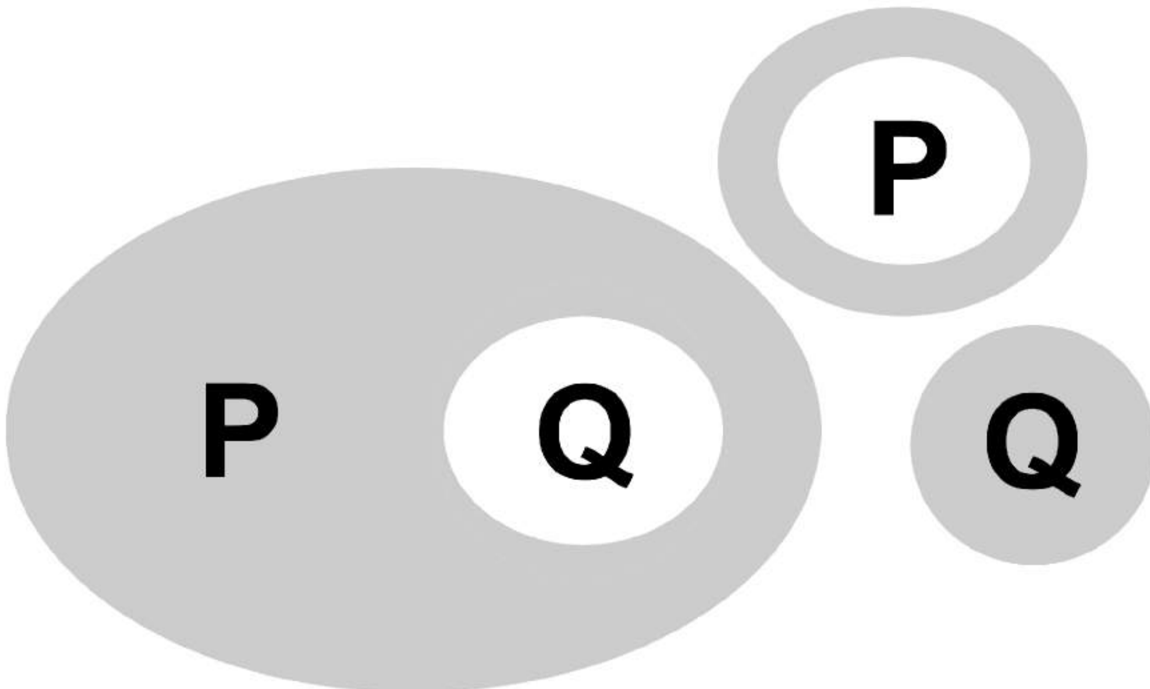
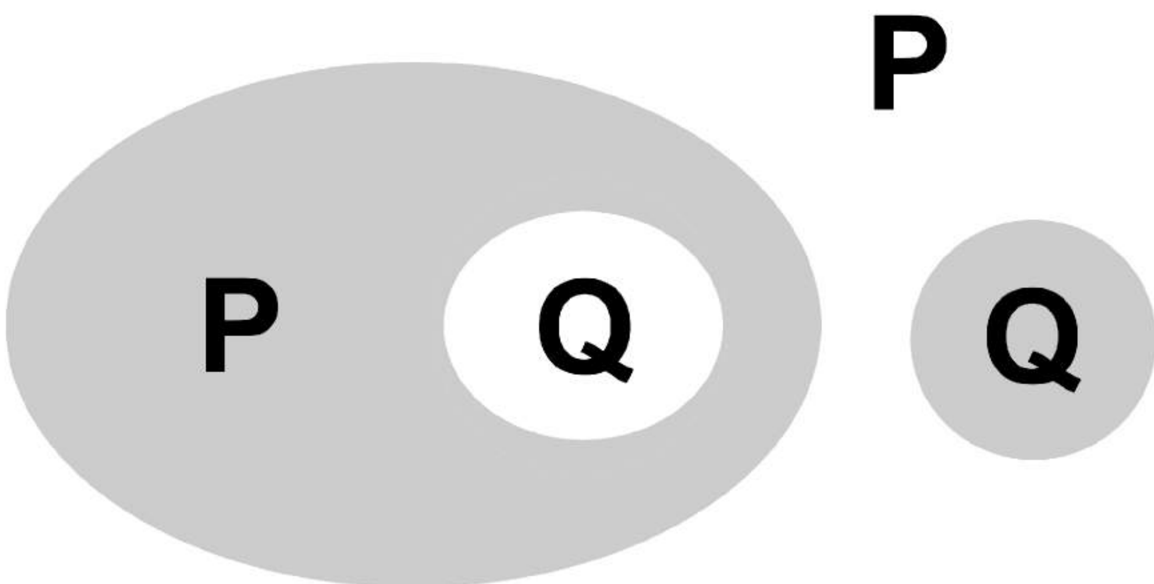
Hand-out on Existential Graphs, question 16



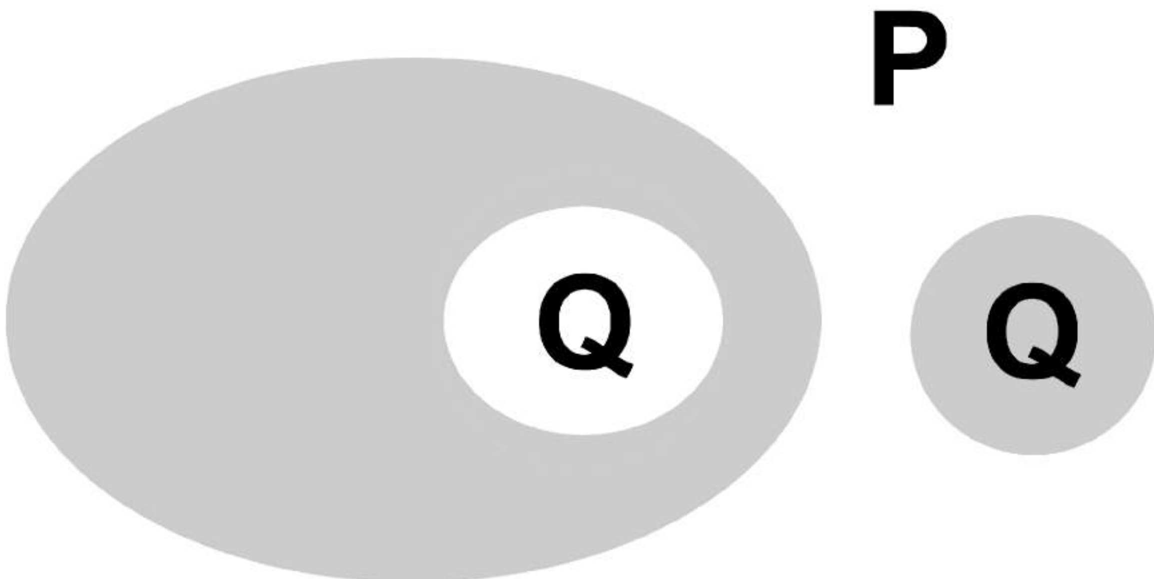
Negated conclusion

Prepared by Dr. Marc Champagne for PHIL 1150



Double cut

Hand-out on Existential Graphs, question 16



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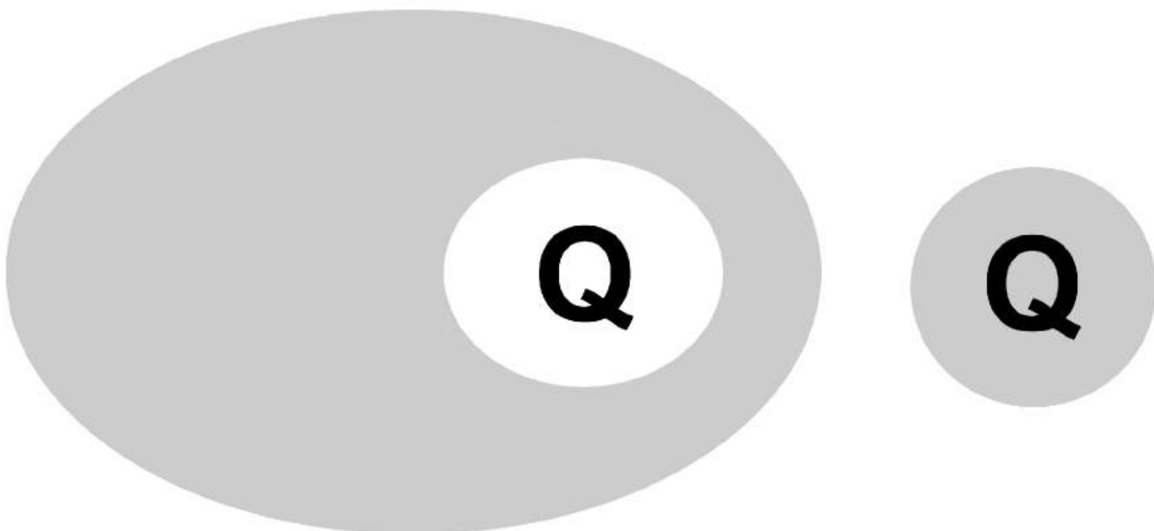
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 16



Erase

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Hand-out on Existential Graphs, question 16

Double cut

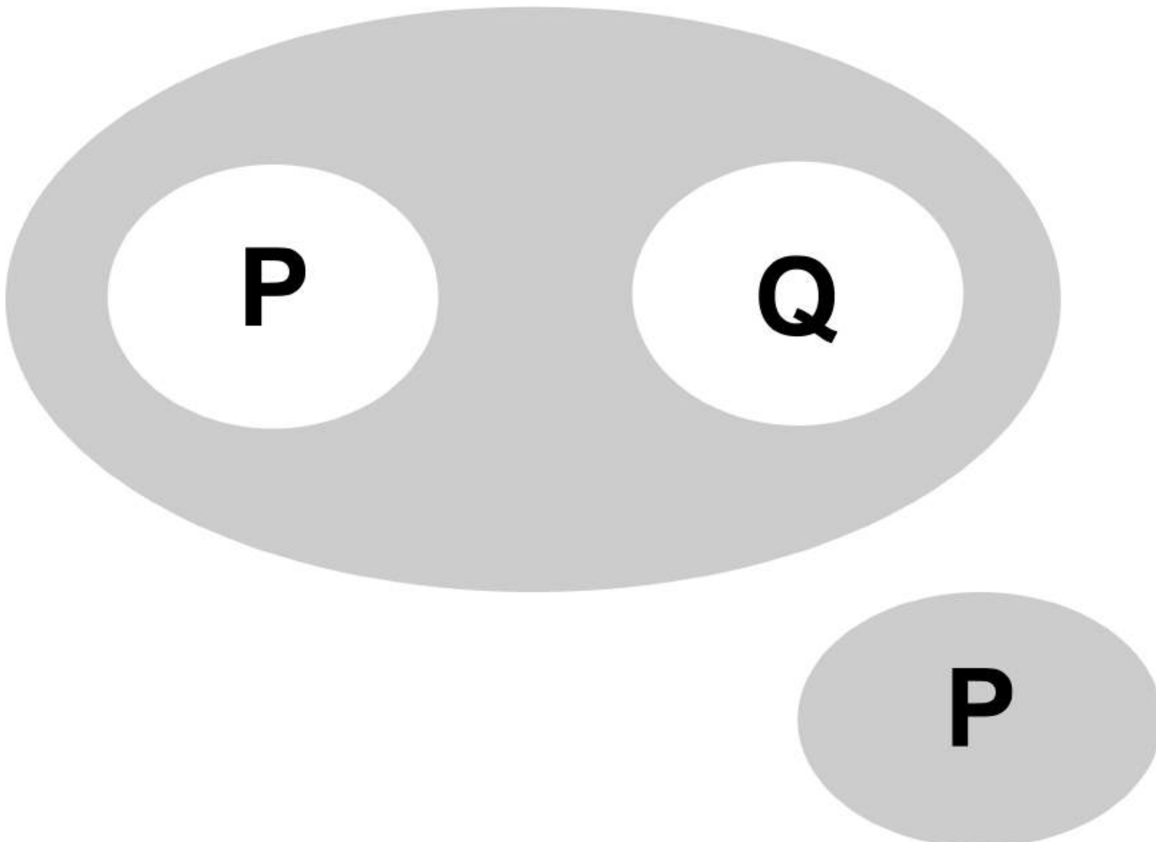
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 16

Contrapiction

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 17



Premises

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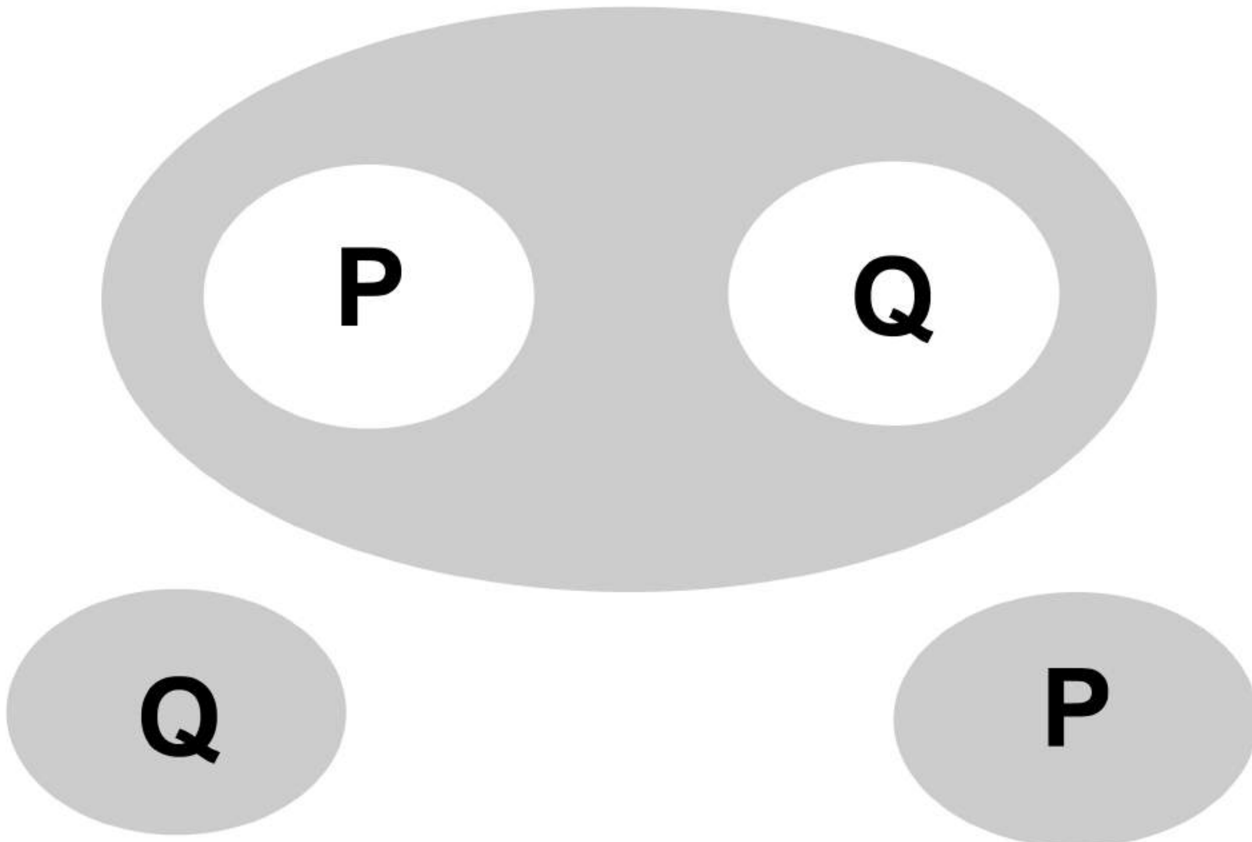
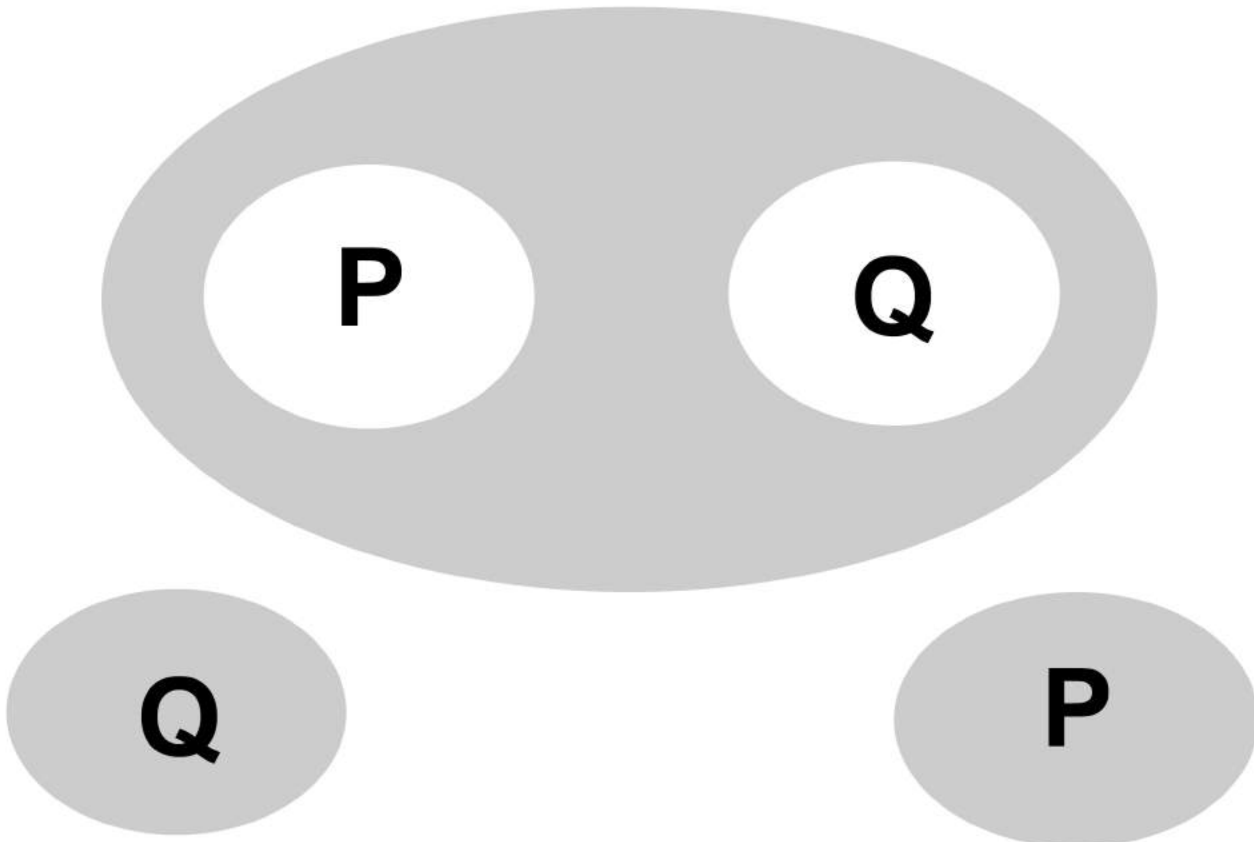
Hand-out on Existential Graphs, question 17



Negated conclusion

Prepared by Dr. Marc Champagne for PHIL 1150

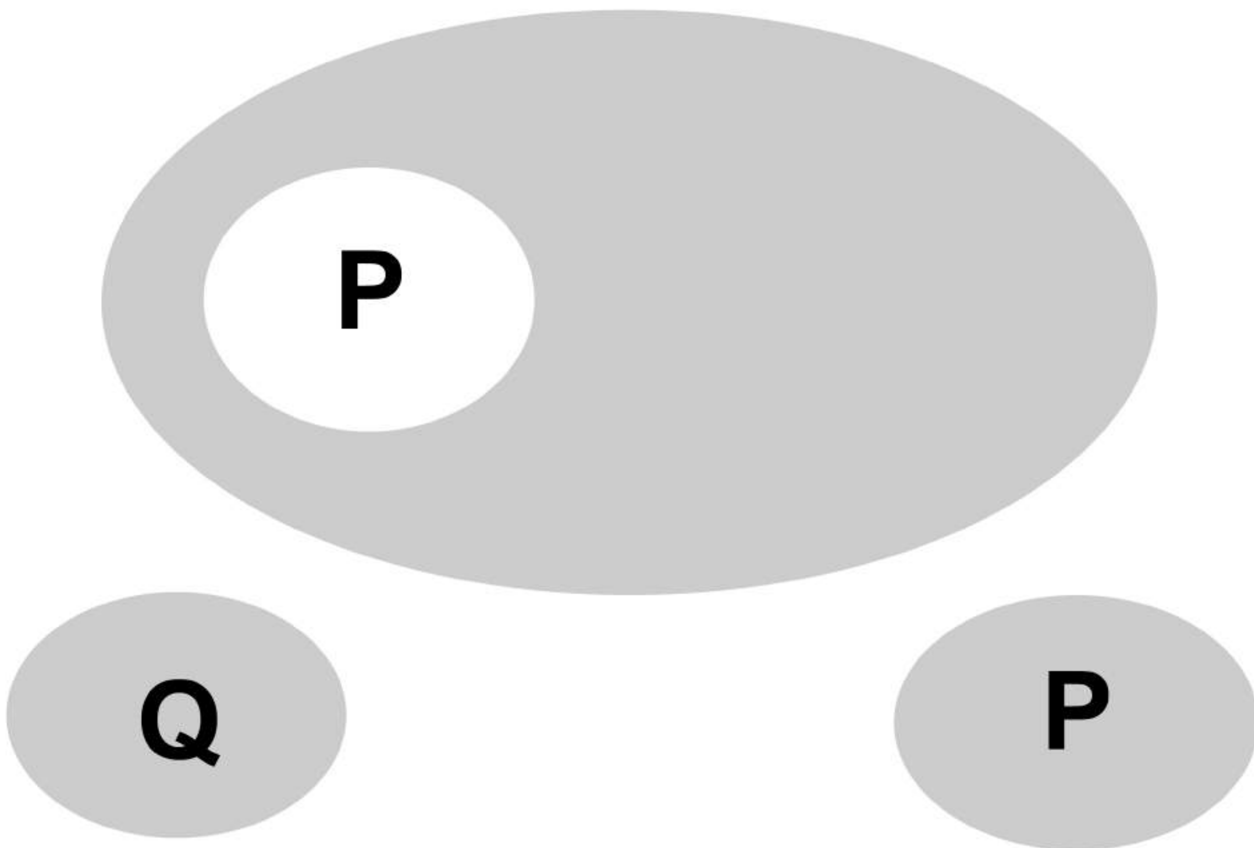
Hand-out on Existential Graphs, question 17



Contrapiction

Prepared by Dr. Marc Champagne for PHIL 1150

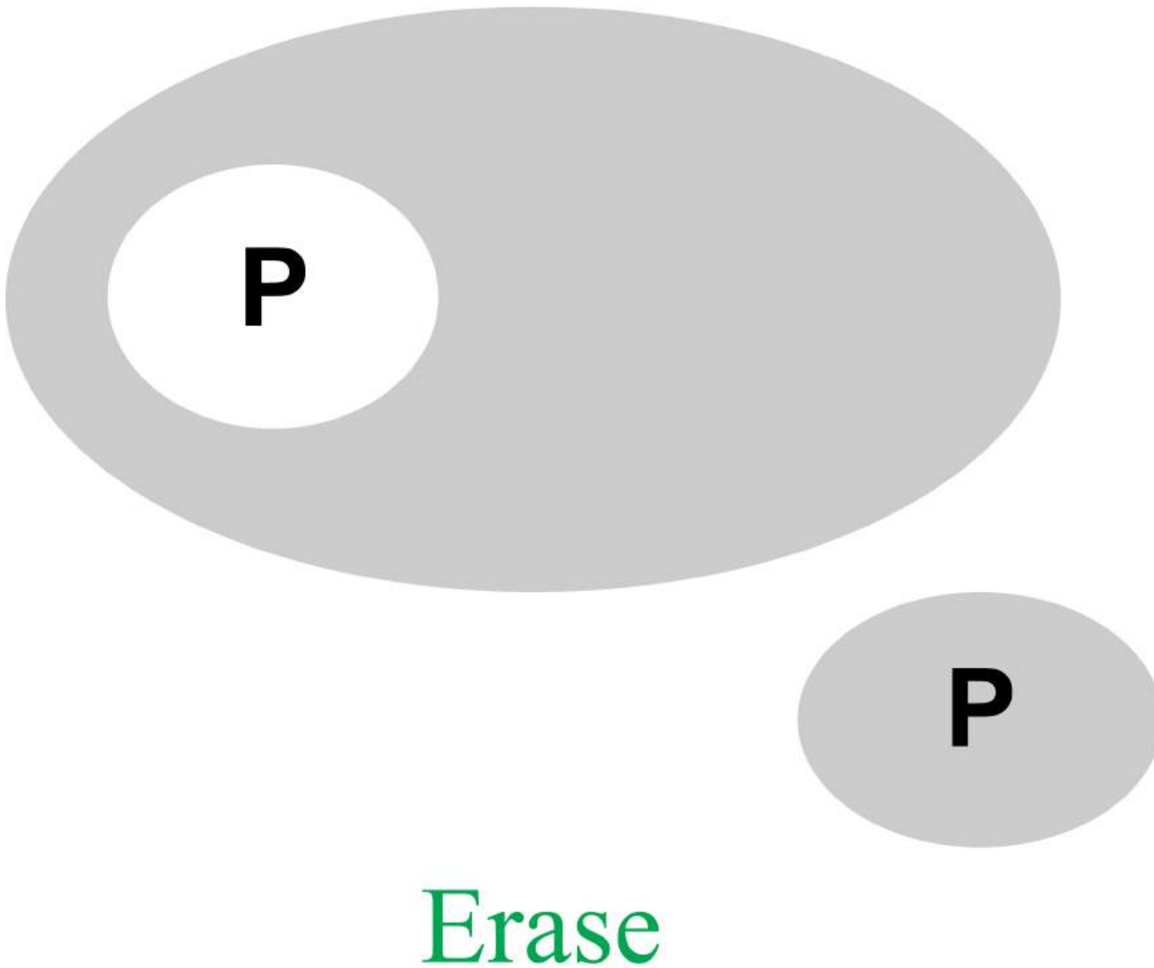
Hand-out on Existential Graphs, question 17



Deiterate

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 17



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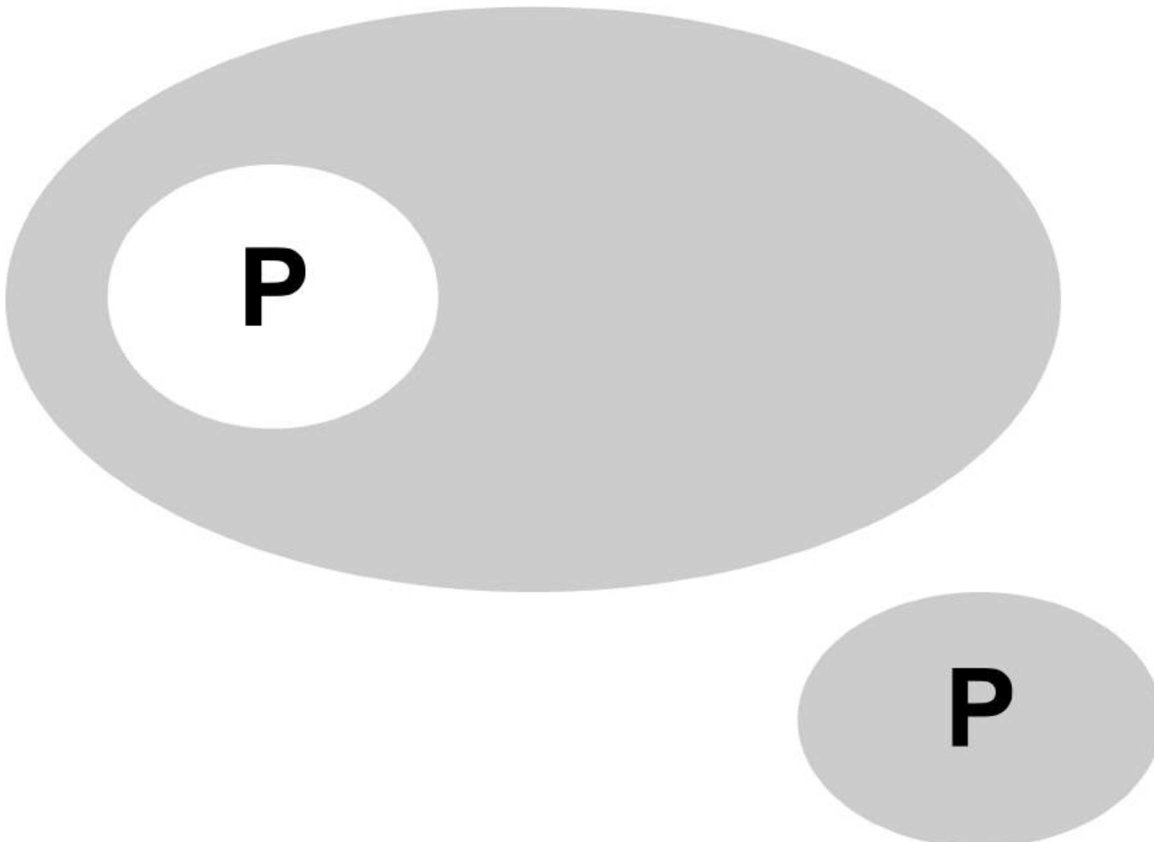
Hand-out on Existential Graphs, question 17



Contrapiction

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Hand-out on Existential Graphs, question 17

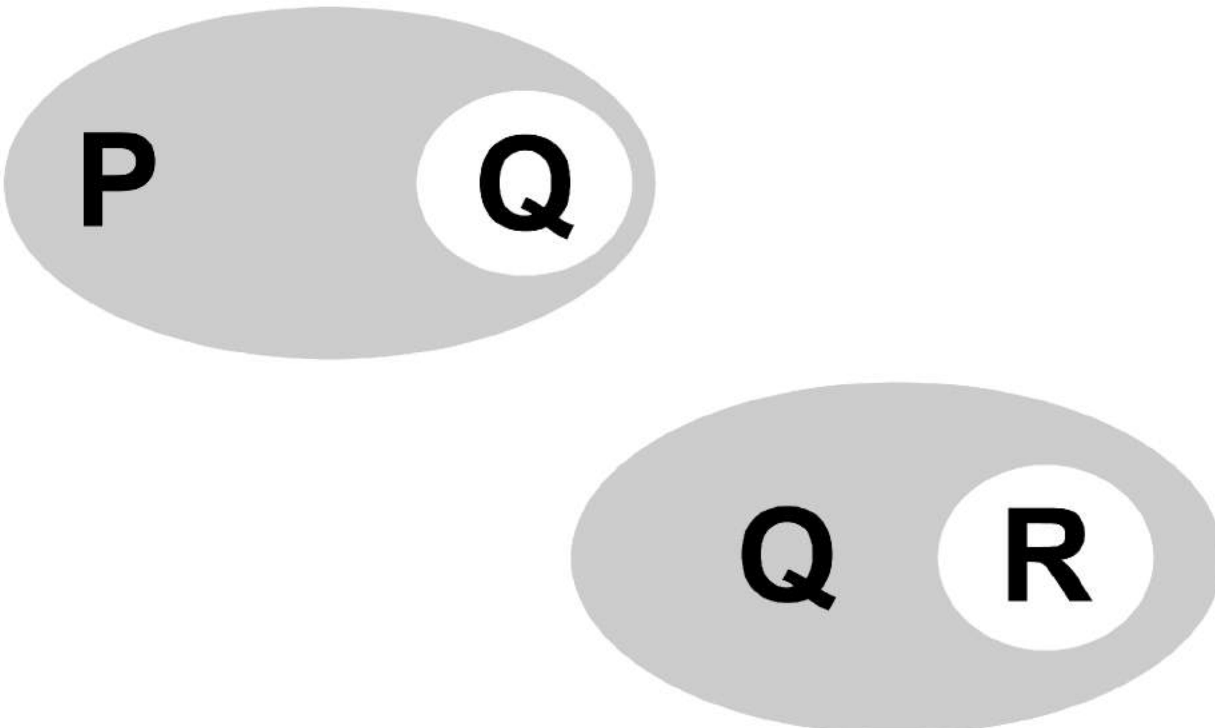
Double cut

Hand-out on Existential Graphs, question 17

Contrapiction

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 18



Premises

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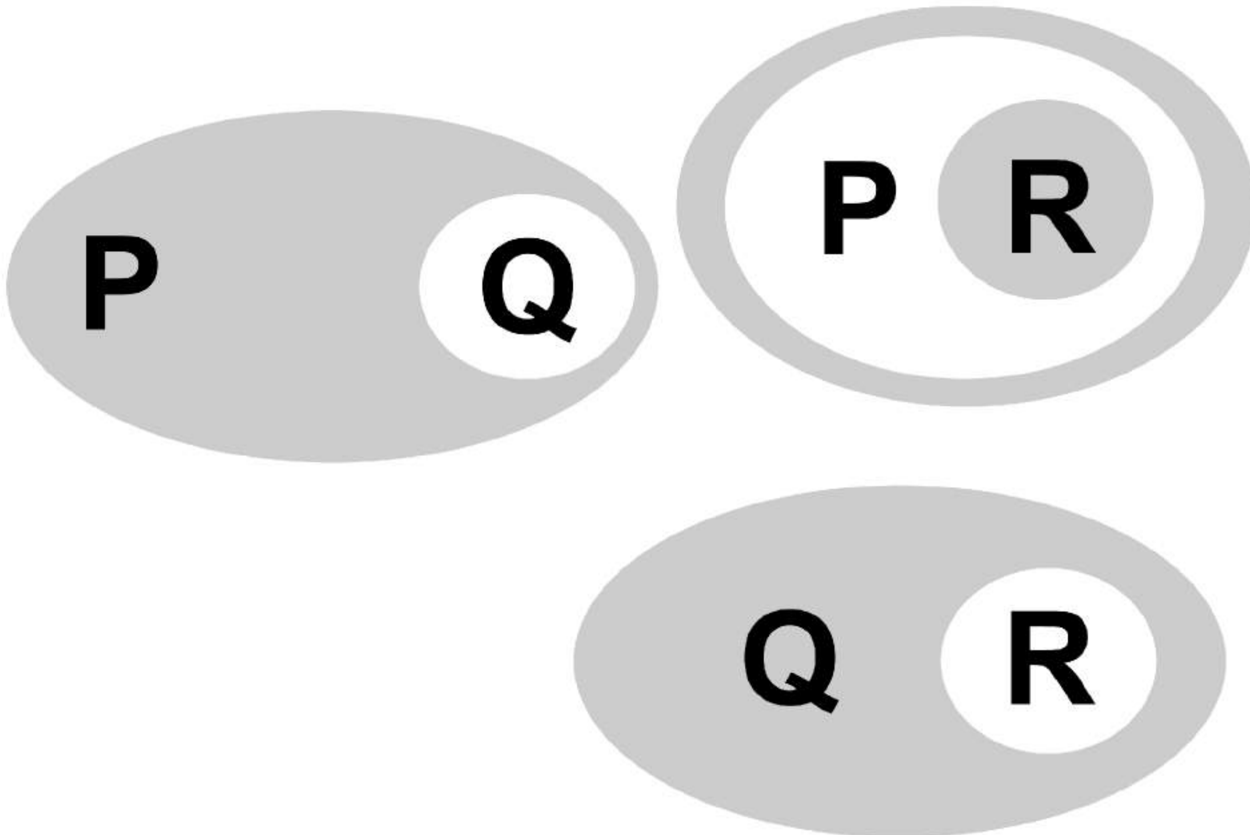
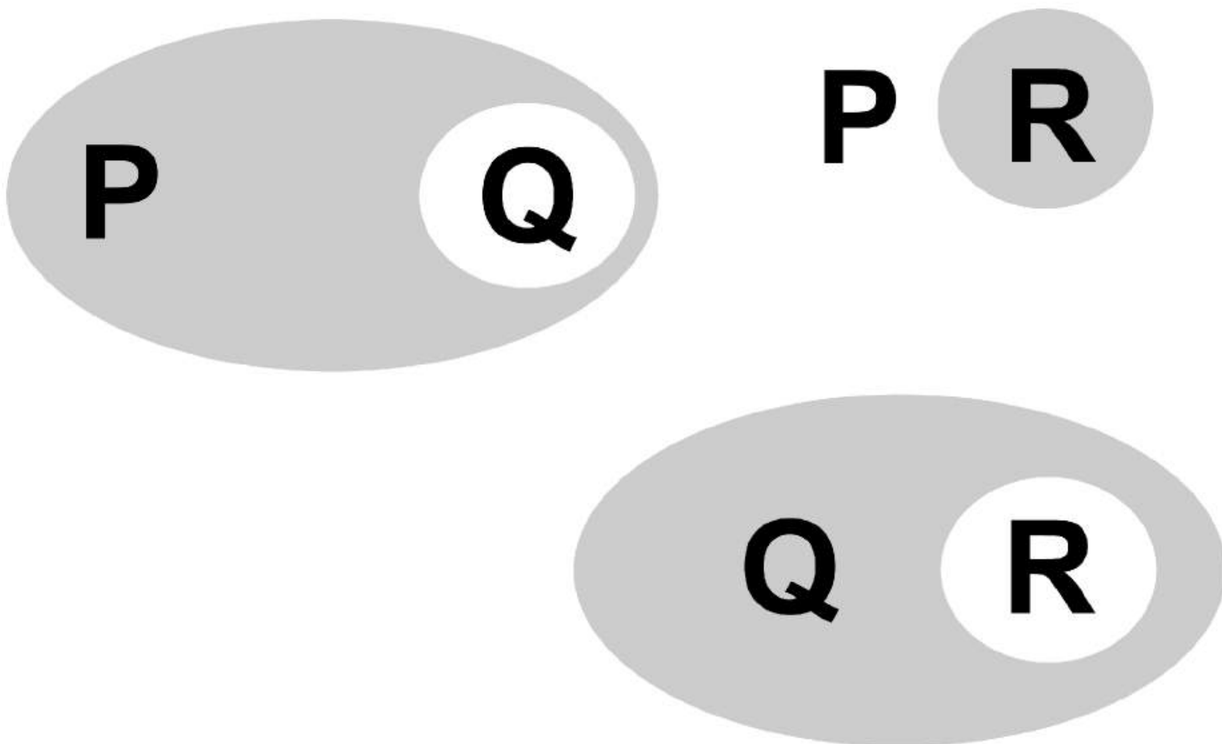
Hand-out on Existential Graphs, question 18



Negated conclusion

Prepared by Dr. Marc Champagne for PHIL 1150

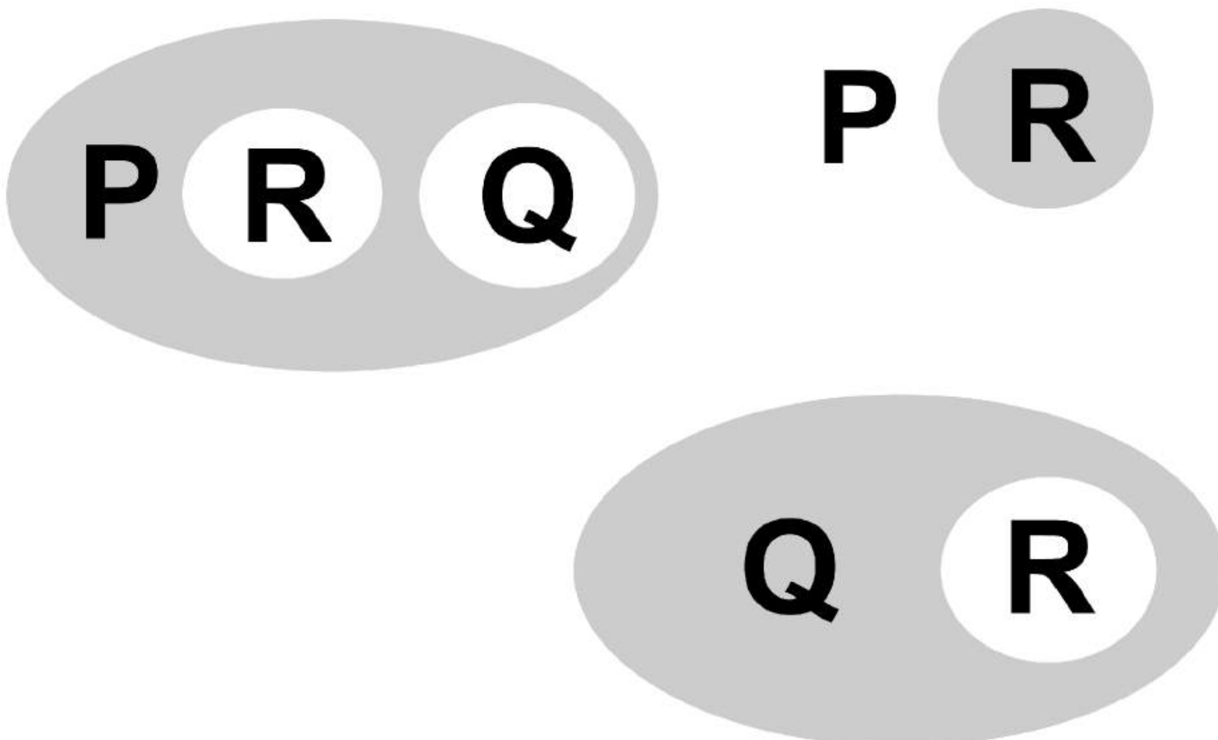
Hand-out on Existential Graphs, question 18



Double cut

Prepared by Dr. Marc Champagne for PHIL 1150

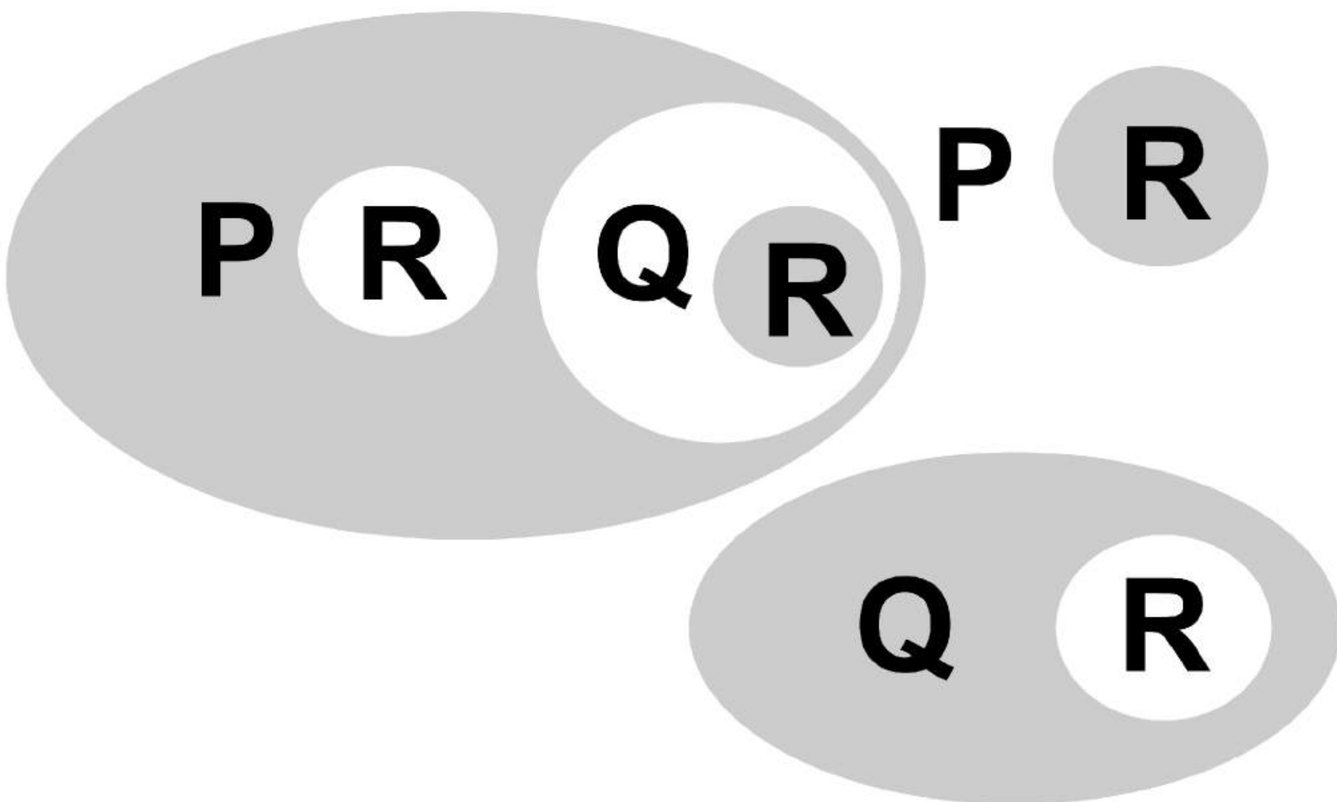
Hand-out on Existential Graphs, question 18



Iterate

Prepared by Dr. Marc Champagne for PHIL 1150

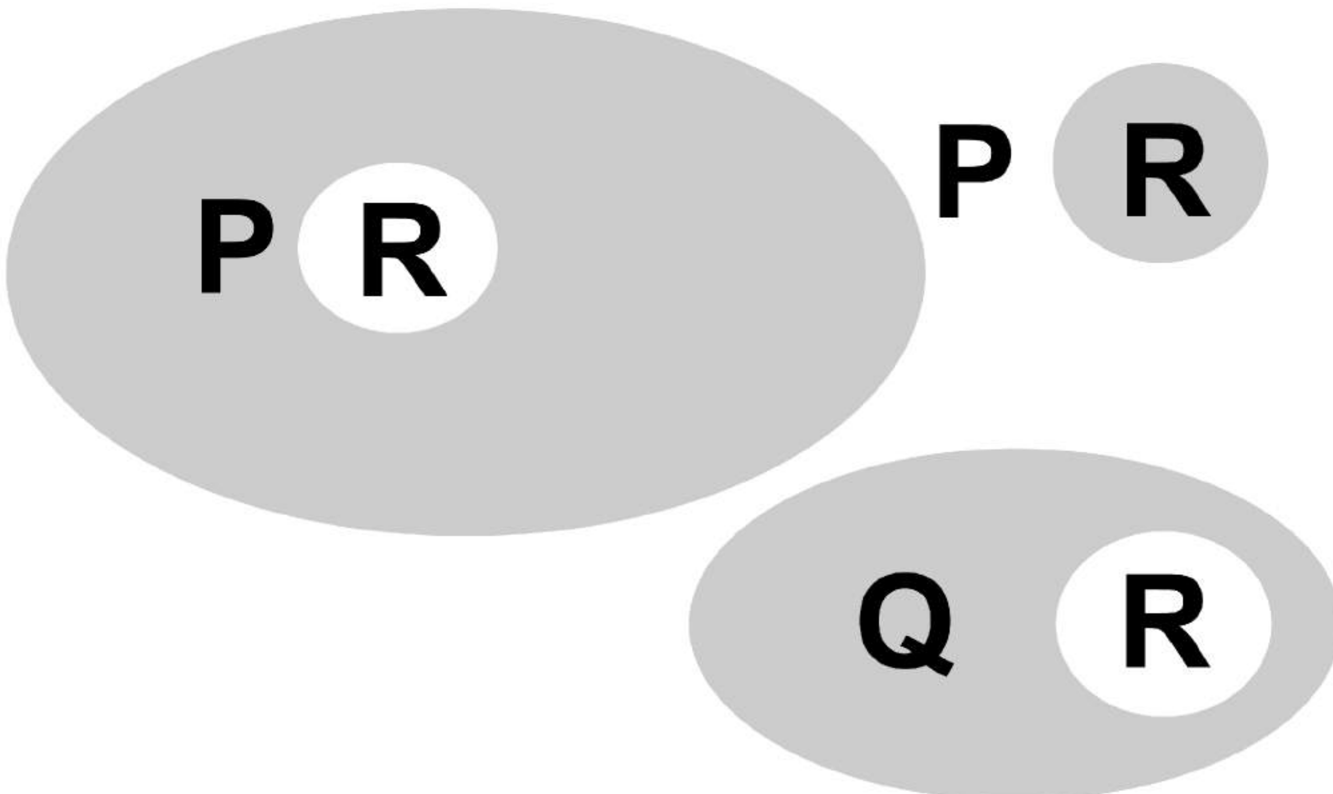
Hand-out on Existential Graphs, question 18



Iterate

Prepared by Dr. Marc Champagne for PHIL 1150

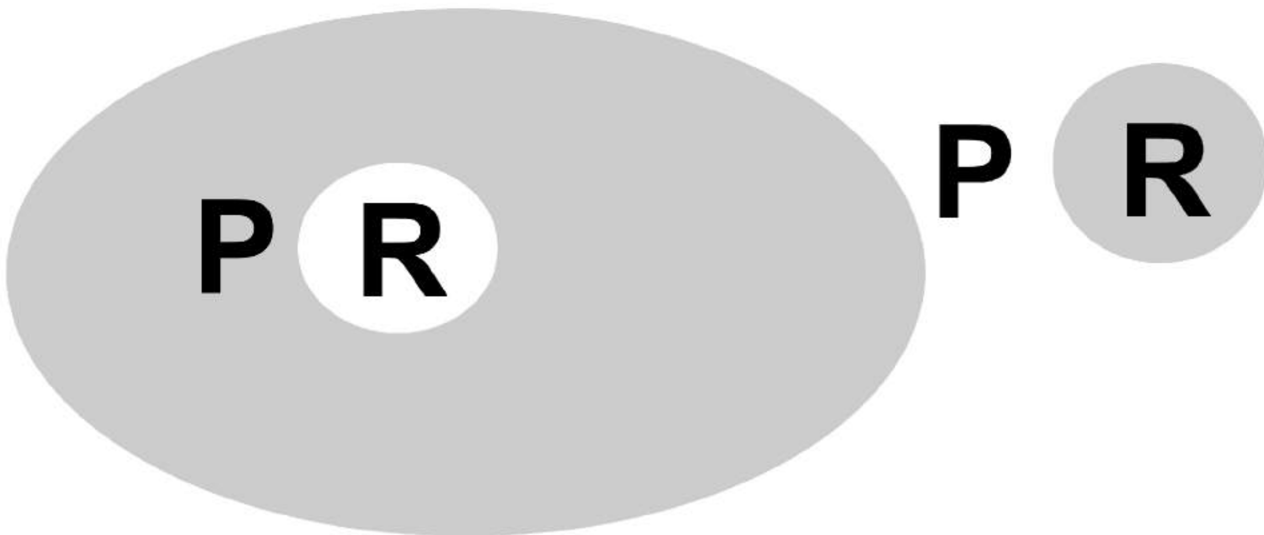
Hand-out on Existential Graphs, question 18



Deiterate

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 18



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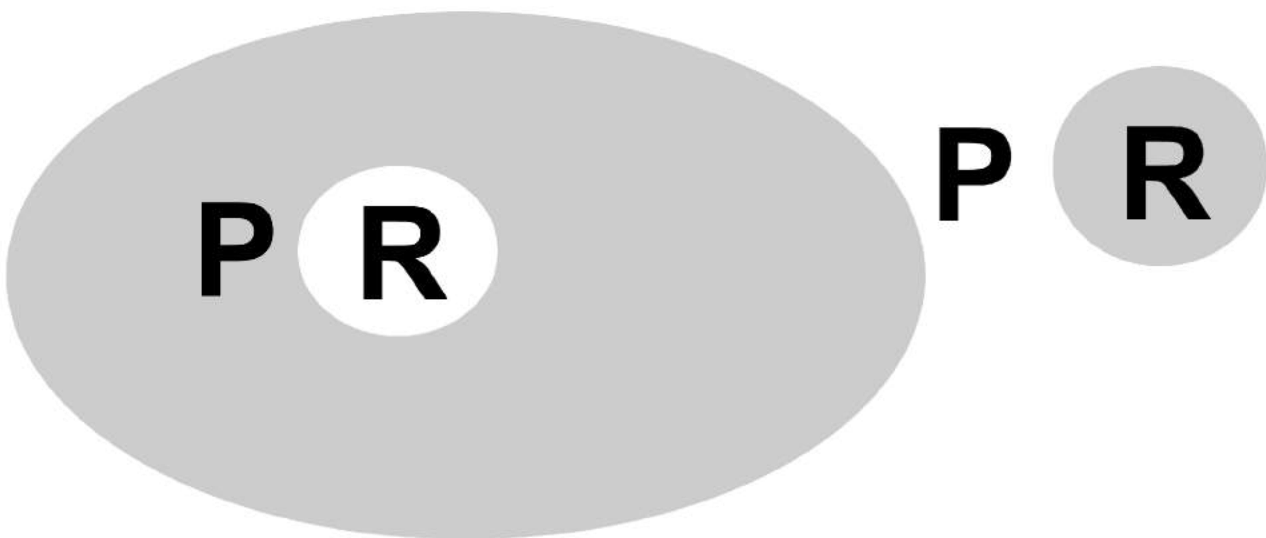
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 18



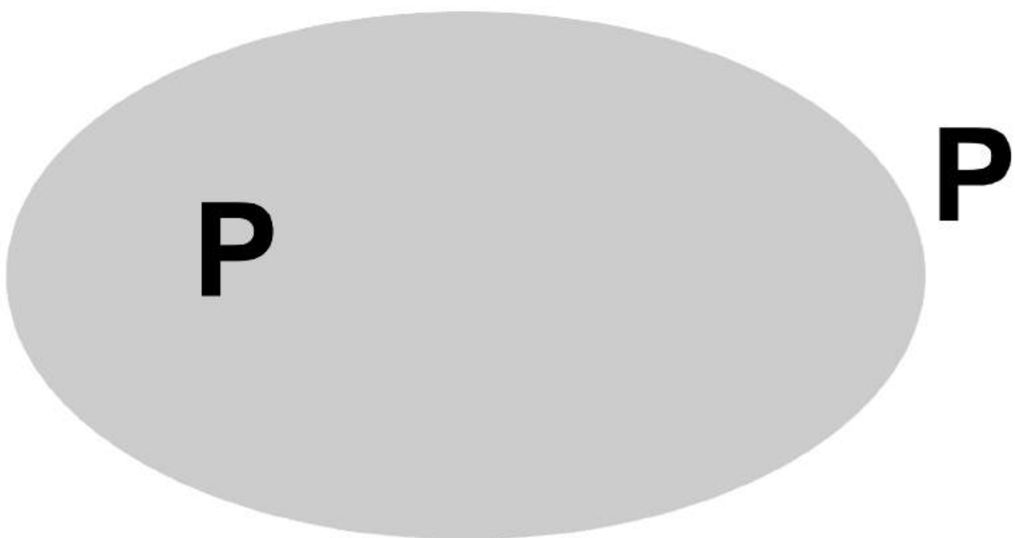
Contrapiction

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 18

Deiterate

Hand-out on Existential Graphs, question 18



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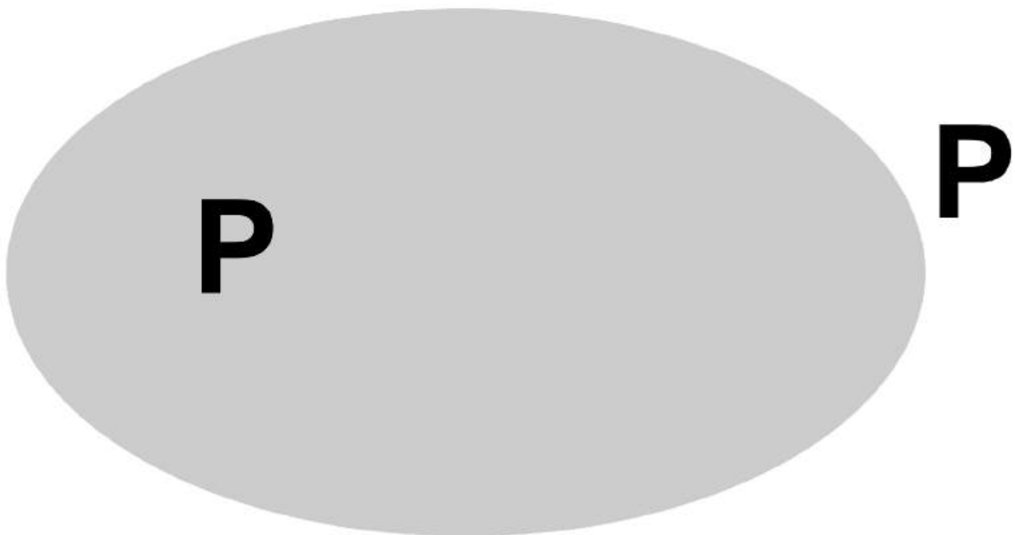
Prepared by Dr. Marc Champagne for PHIL 1150

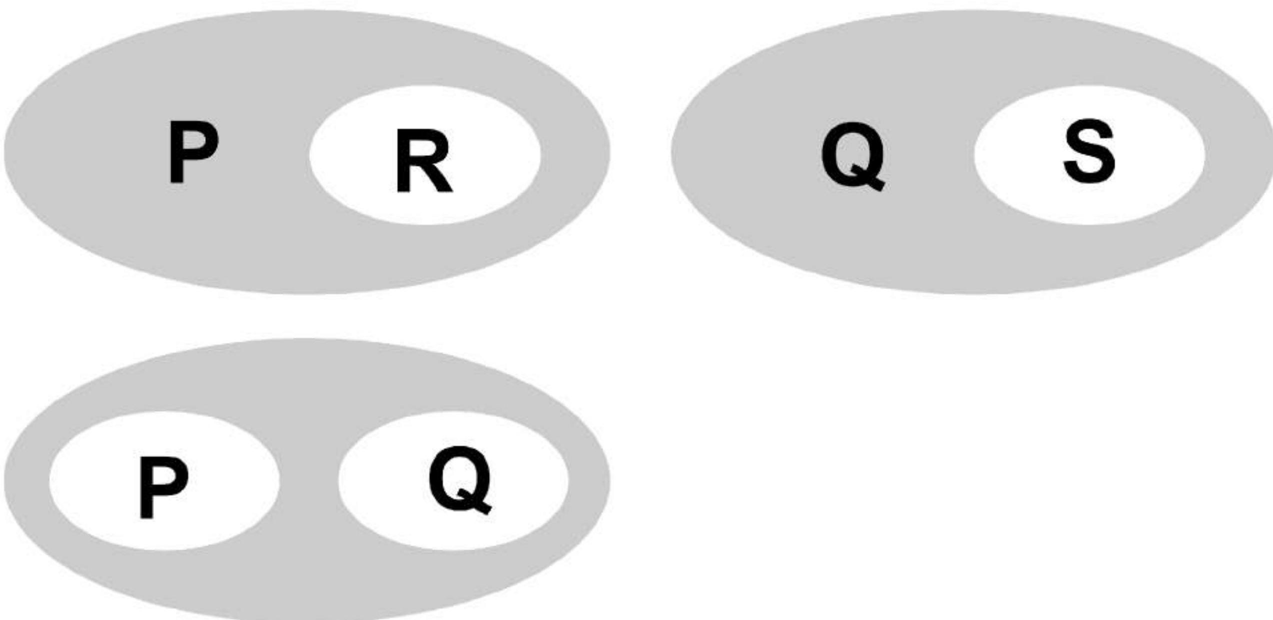
Hand-out on Existential Graphs, question 18



Contrapiction

Prepared by Dr. Marc Champagne for PHIL 1150

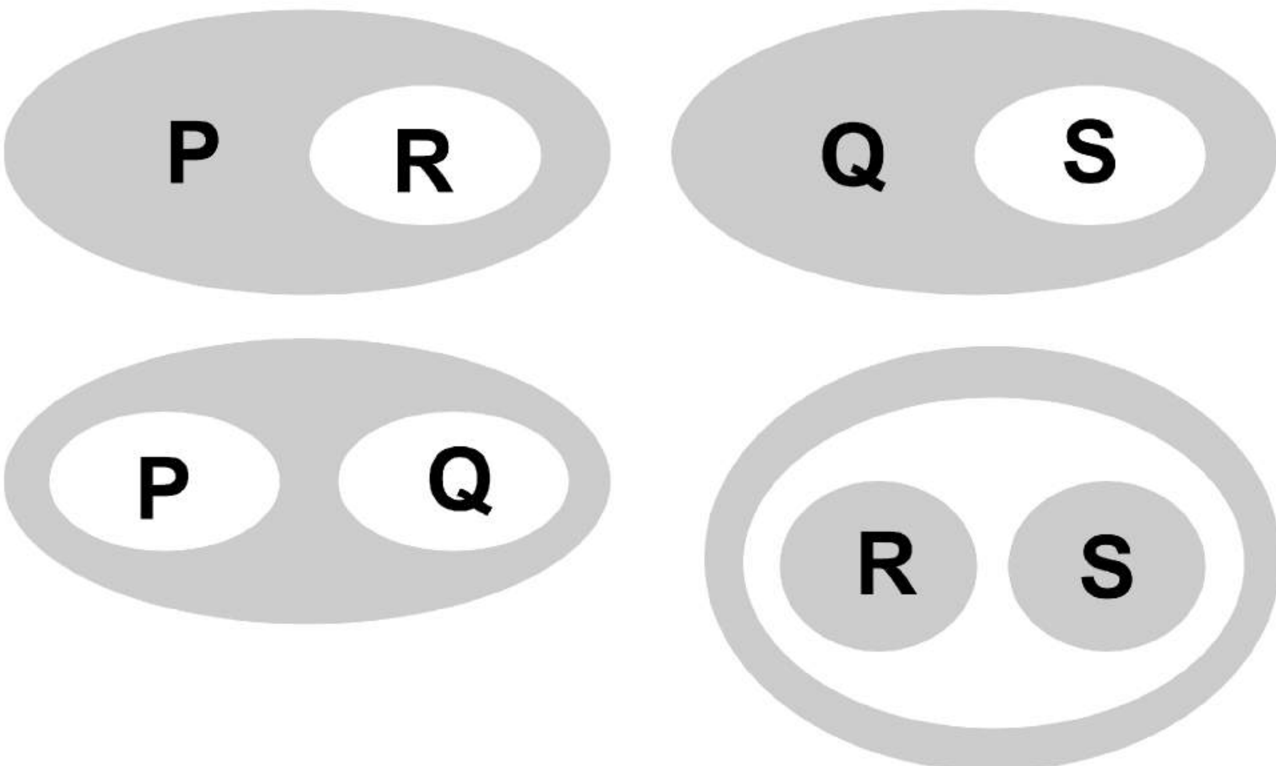
Hand-out on Existential Graphs, question 19



Premises

Prepared by Dr. Marc Champagne for PHIL 1150

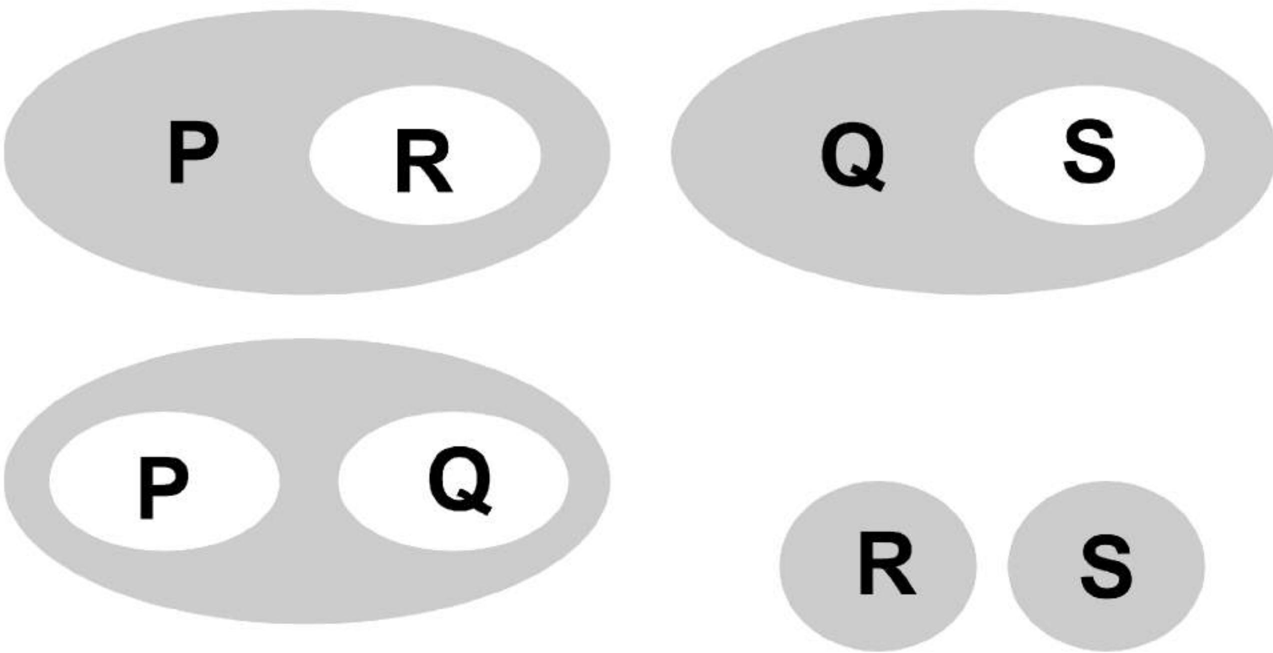
Hand-out on Existential Graphs, question 19



Negated conclusion

Prepared by Dr. Marc Champagne for PHIL 1150

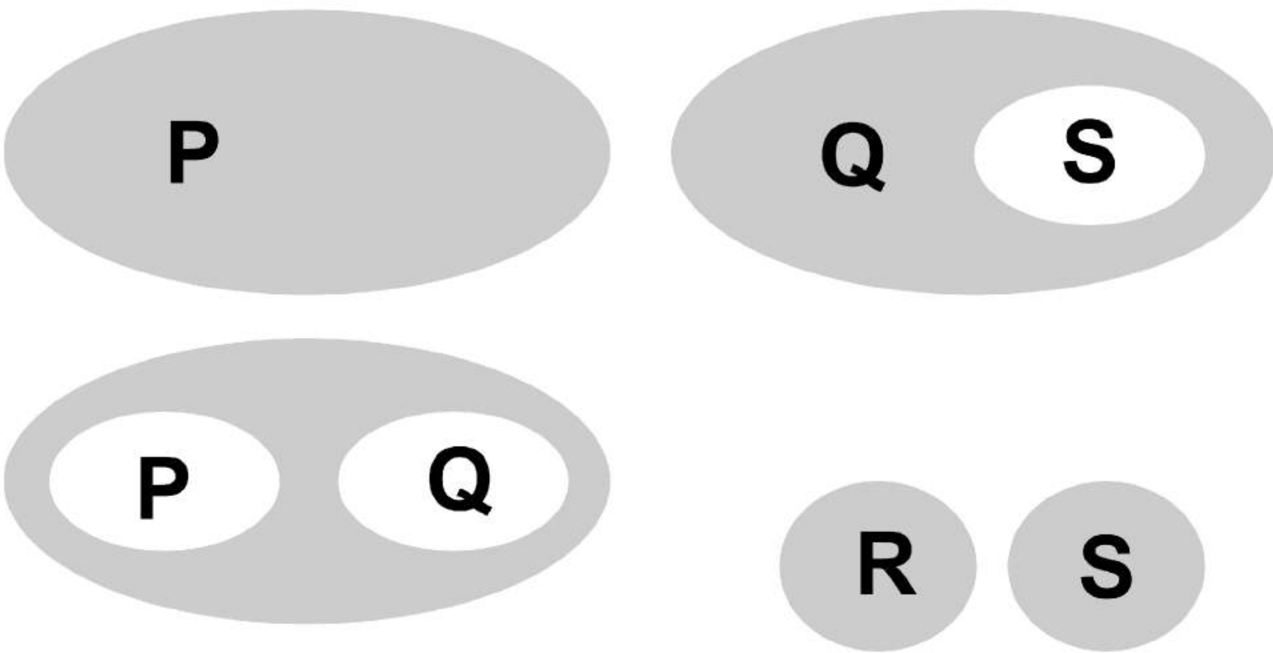
Hand-out on Existential Graphs, question 19



Double cut

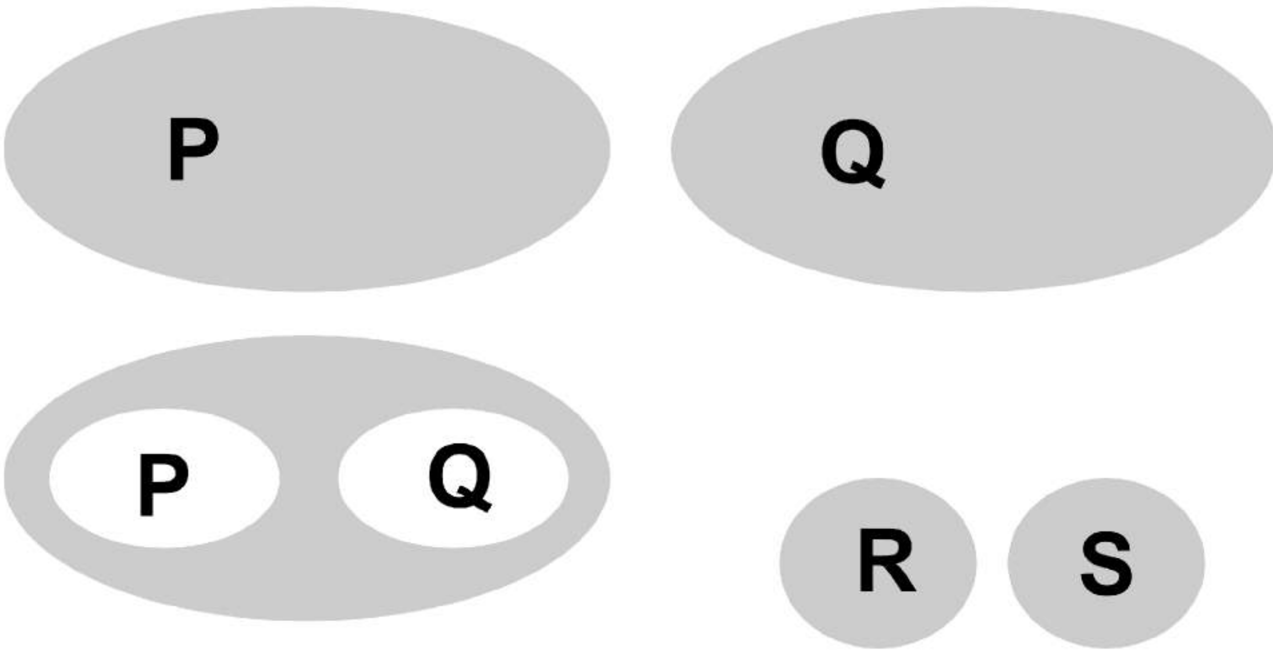
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 19



Deiterate

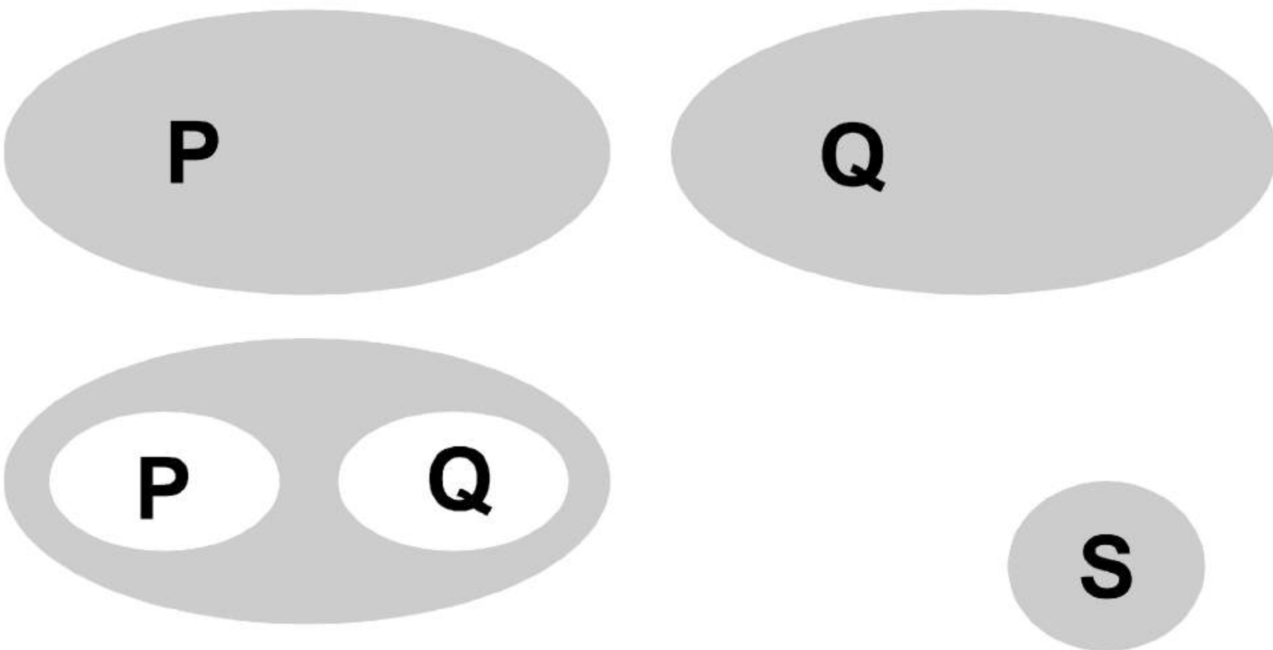
Hand-out on Existential Graphs, question 19



Deiterate

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 19



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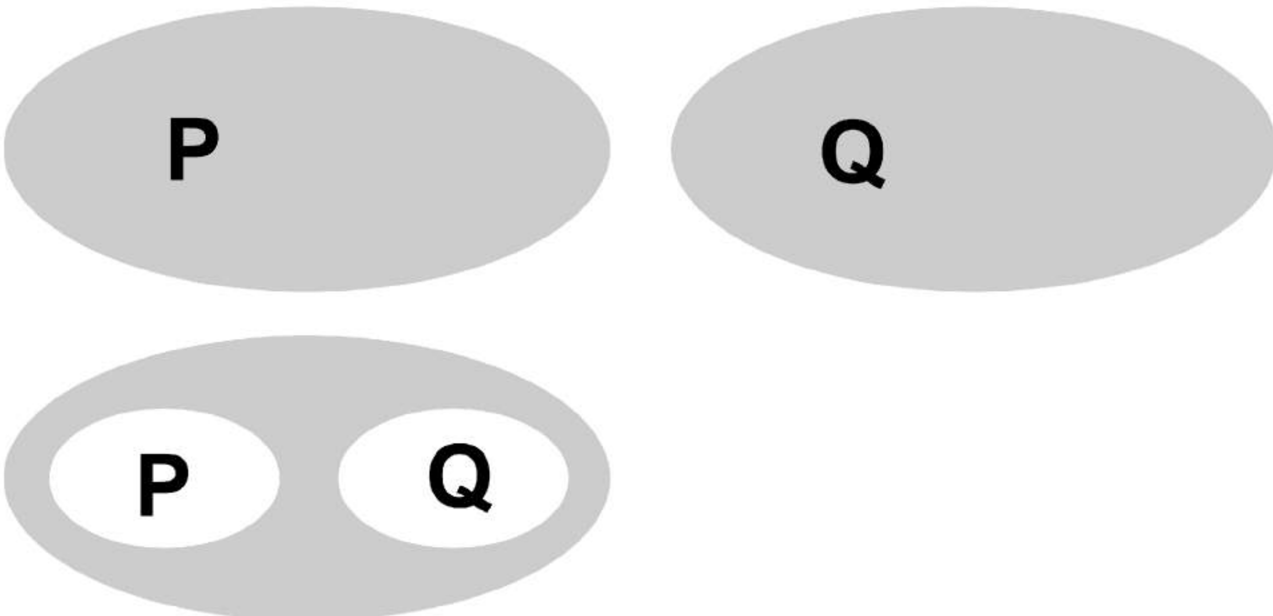
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 19



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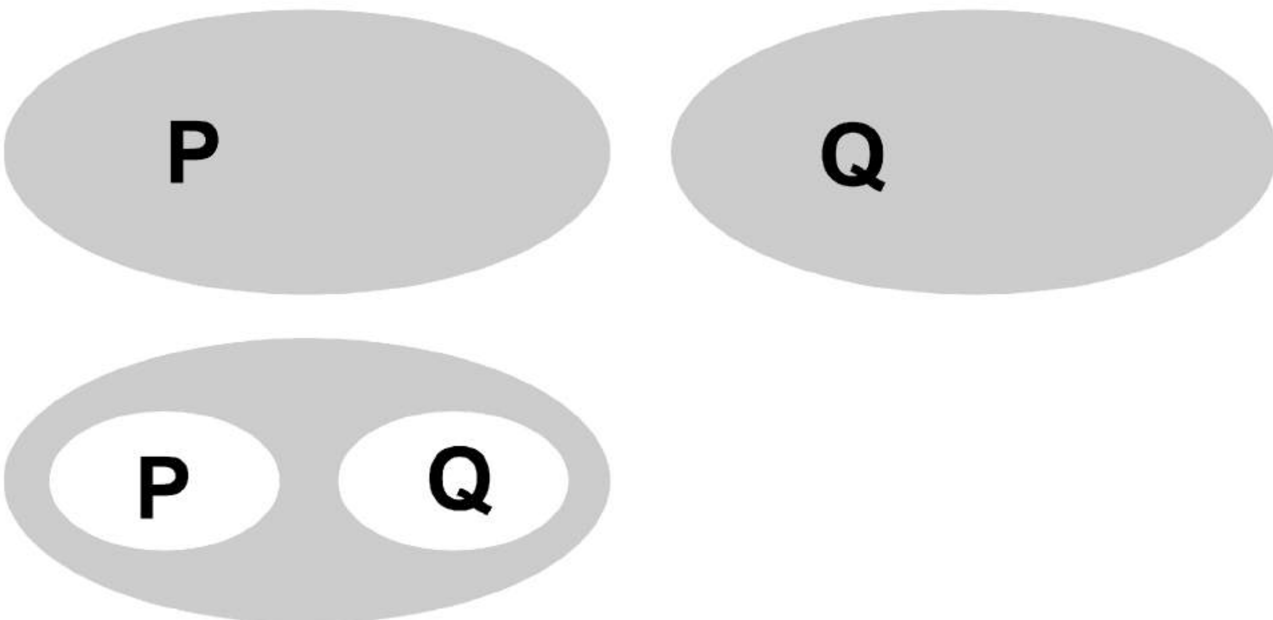
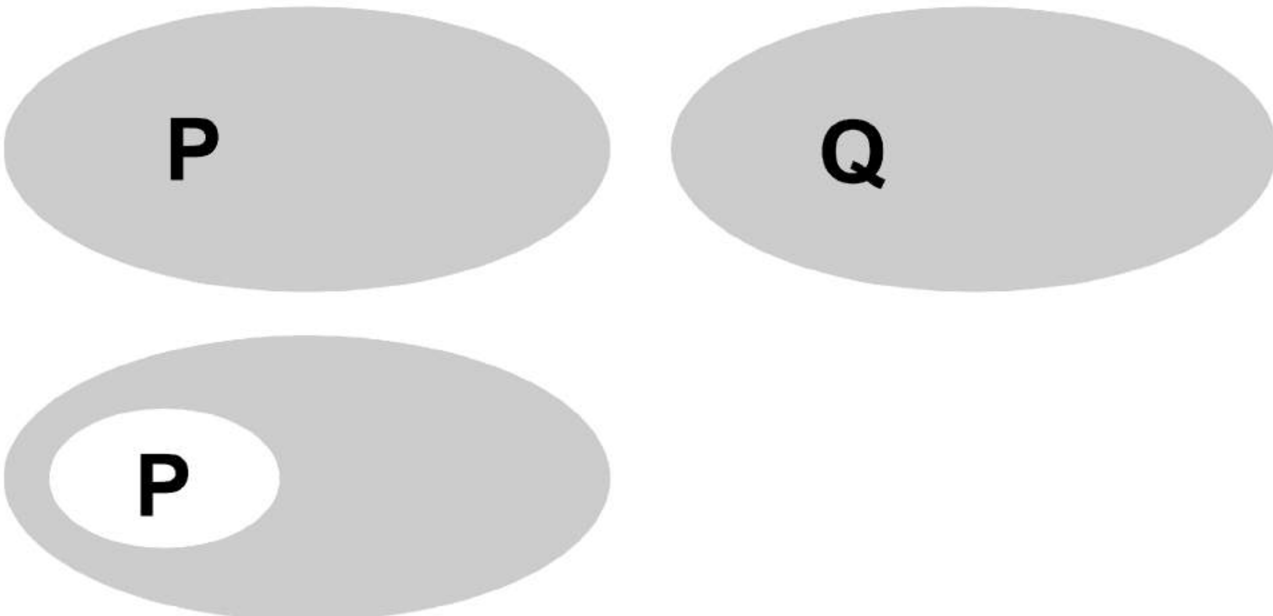
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 19



Contrapiction

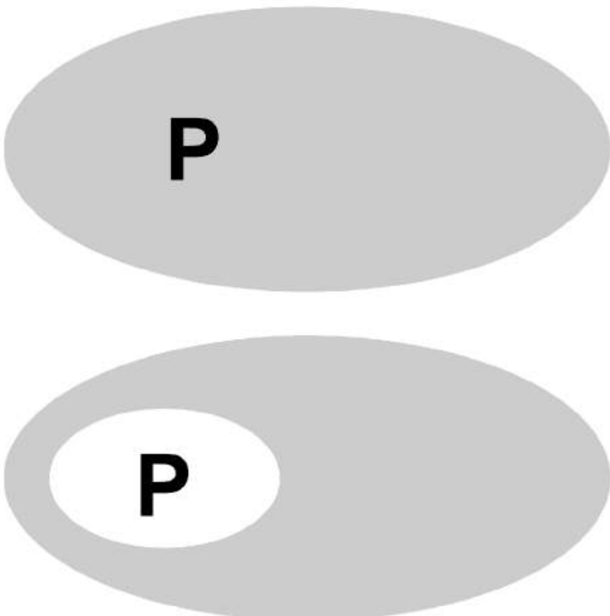
Hand-out on Existential Graphs, question 19



Deiterate

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 19



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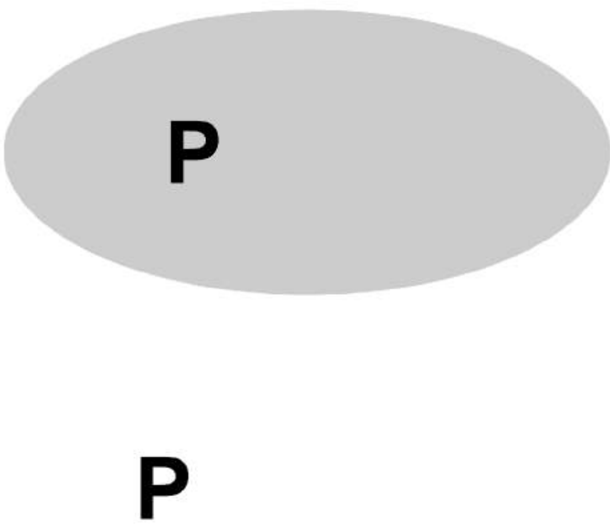
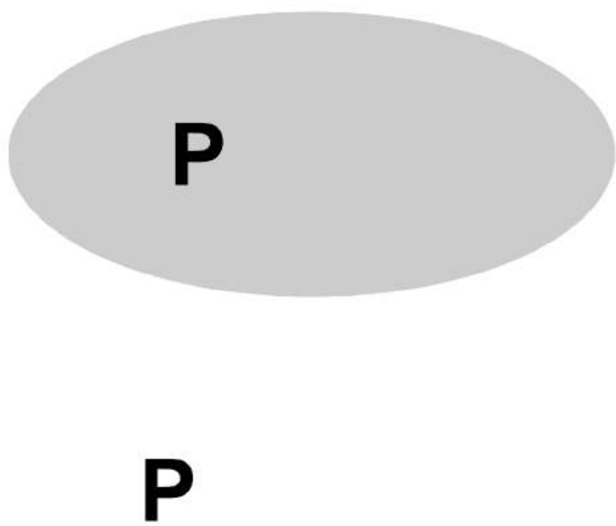
Hand-out on Existential Graphs, question 19



Double cut

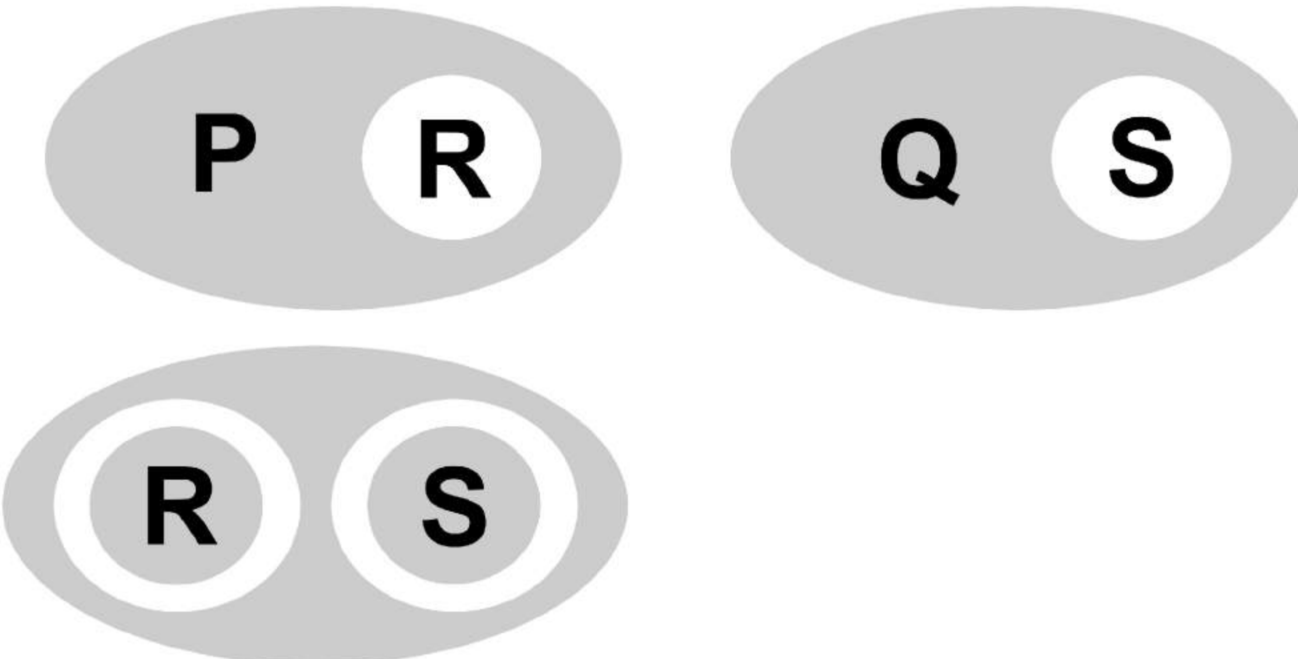
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 19



Contrapiction

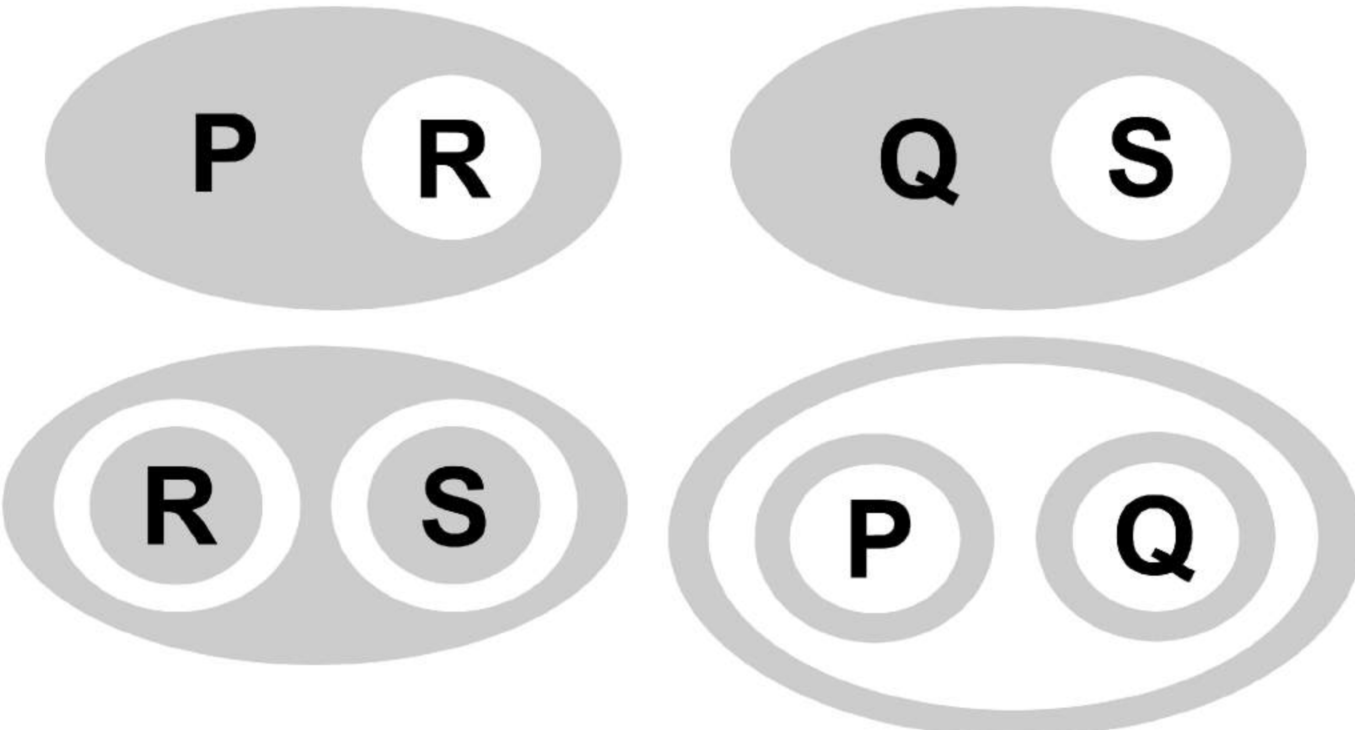
Hand-out on Existential Graphs, question 20



Premises

Prepared by Dr. Marc Champagne for PHIL 1150

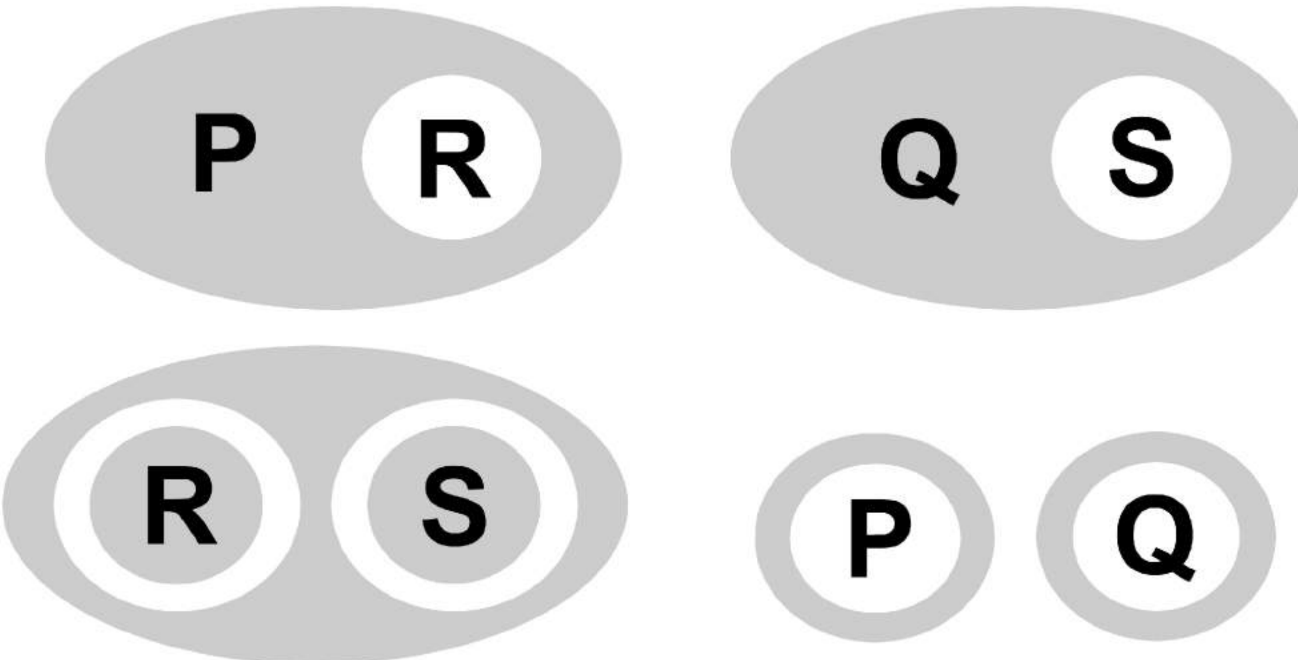
Hand-out on Existential Graphs, question 20



Negated conclusion

Prepared by Dr. Marc Champagne for PHIL 1150

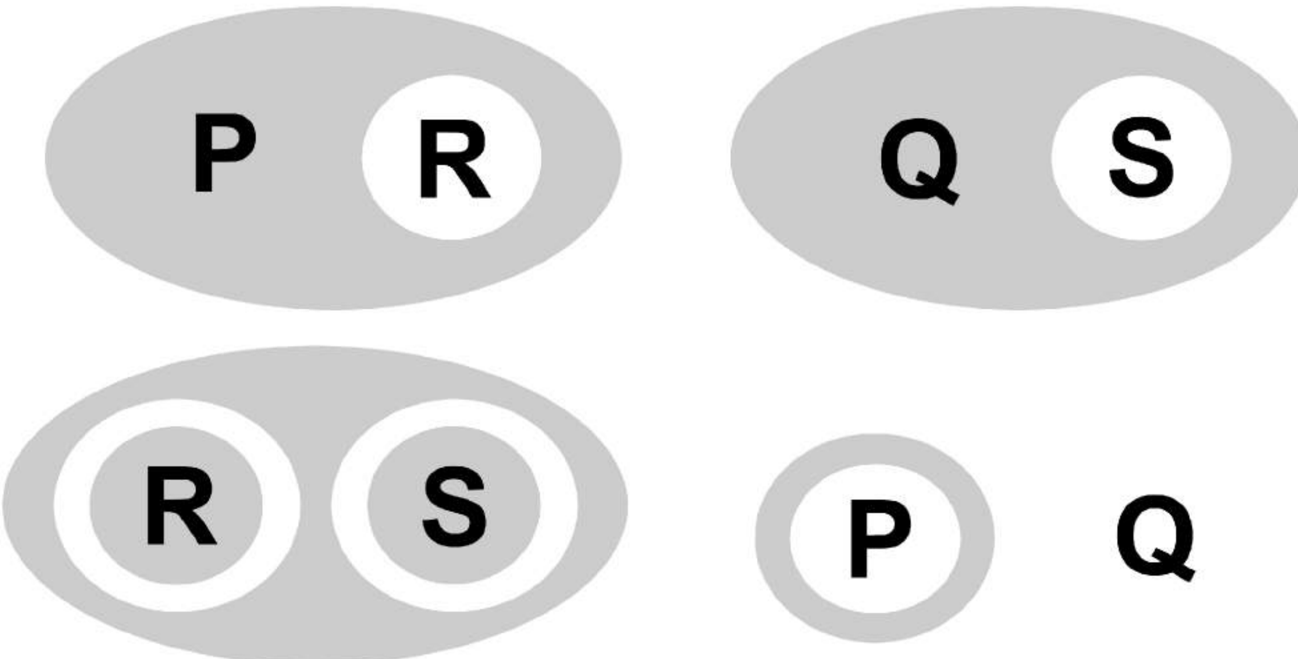
Hand-out on Existential Graphs, question 20



Double cut

Prepared by Dr. Marc Champagne for PHIL 1150

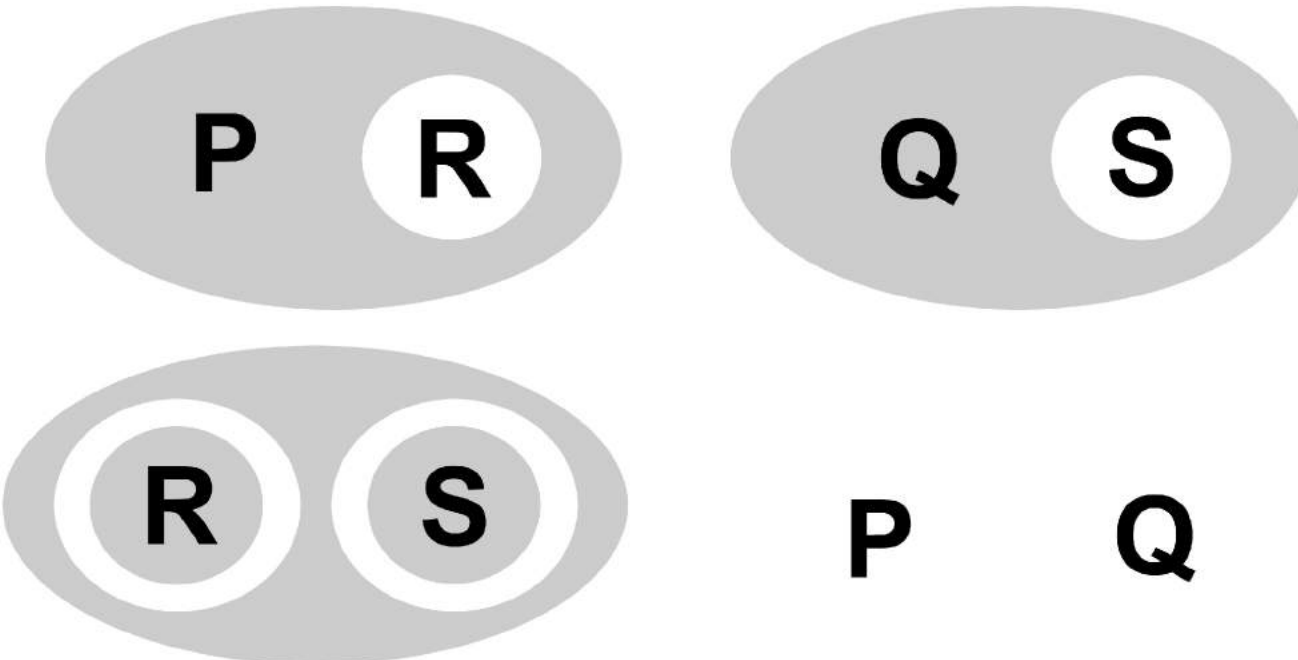
Hand-out on Existential Graphs, question 20



Double cut

Prepared by Dr. Marc Champagne for PHIL 1150

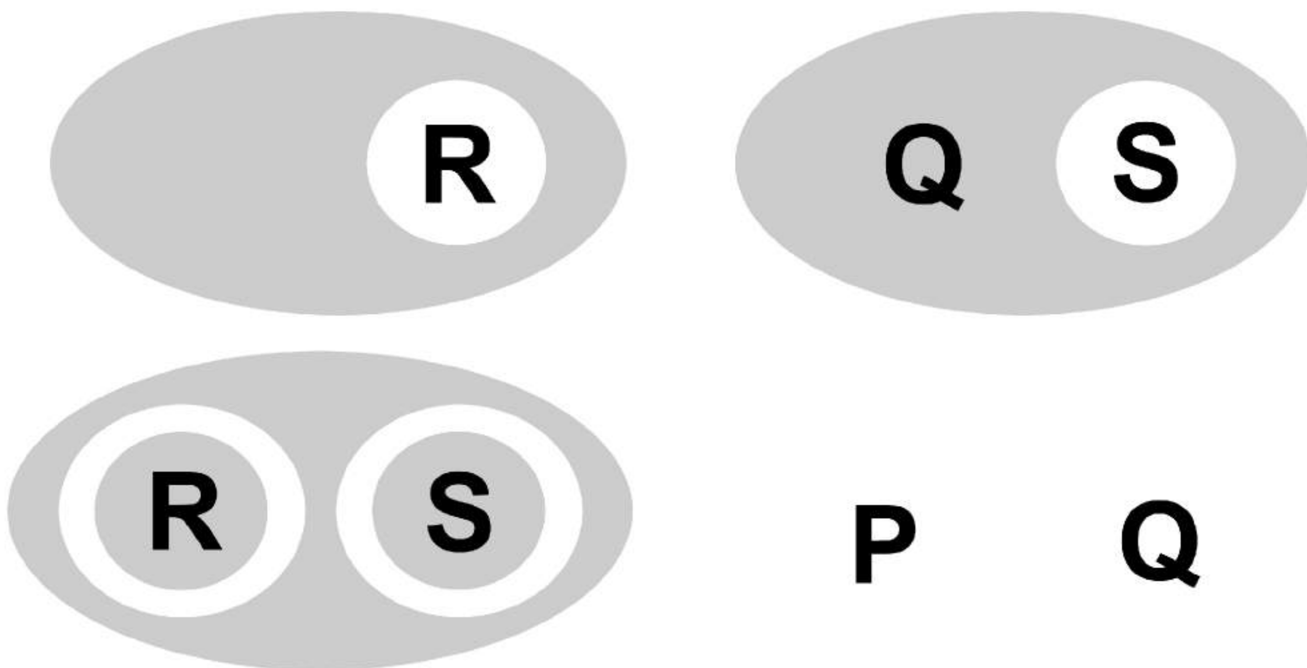
Hand-out on Existential Graphs, question 20



Double cut

Prepared by Dr. Marc Champagne for PHIL 1150

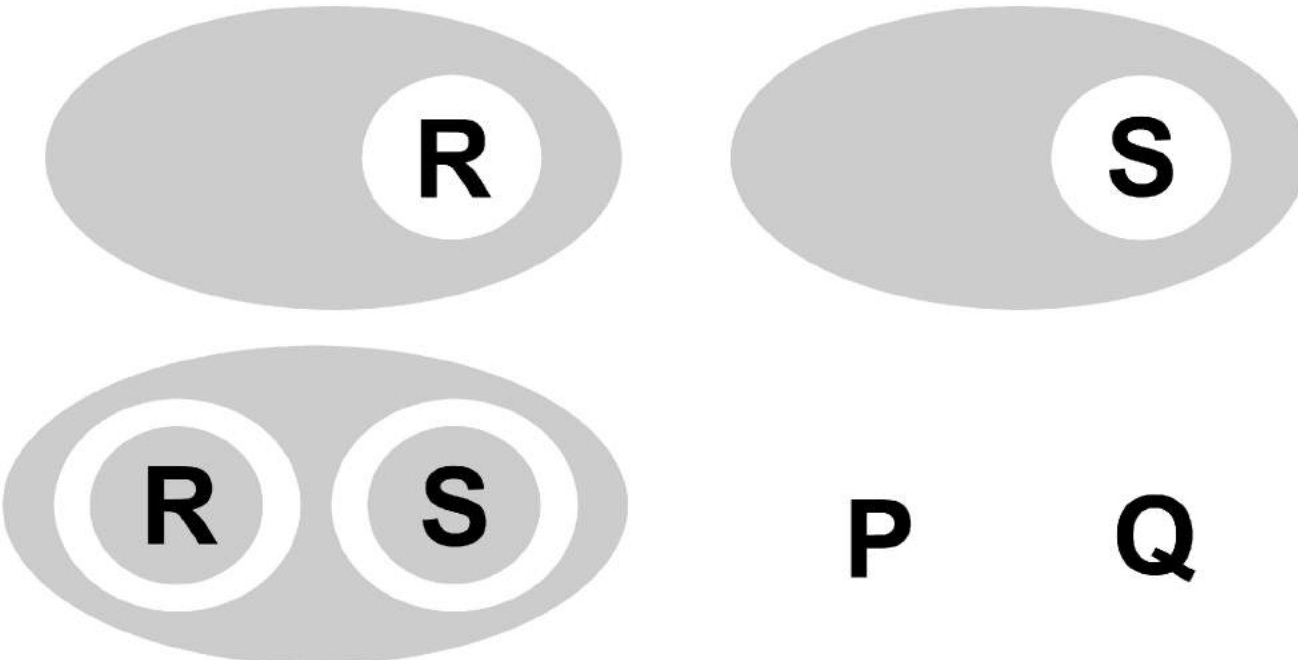
Hand-out on Existential Graphs, question 20



Deiterate

Prepared by Dr. Marc Champagne for PHIL 1150

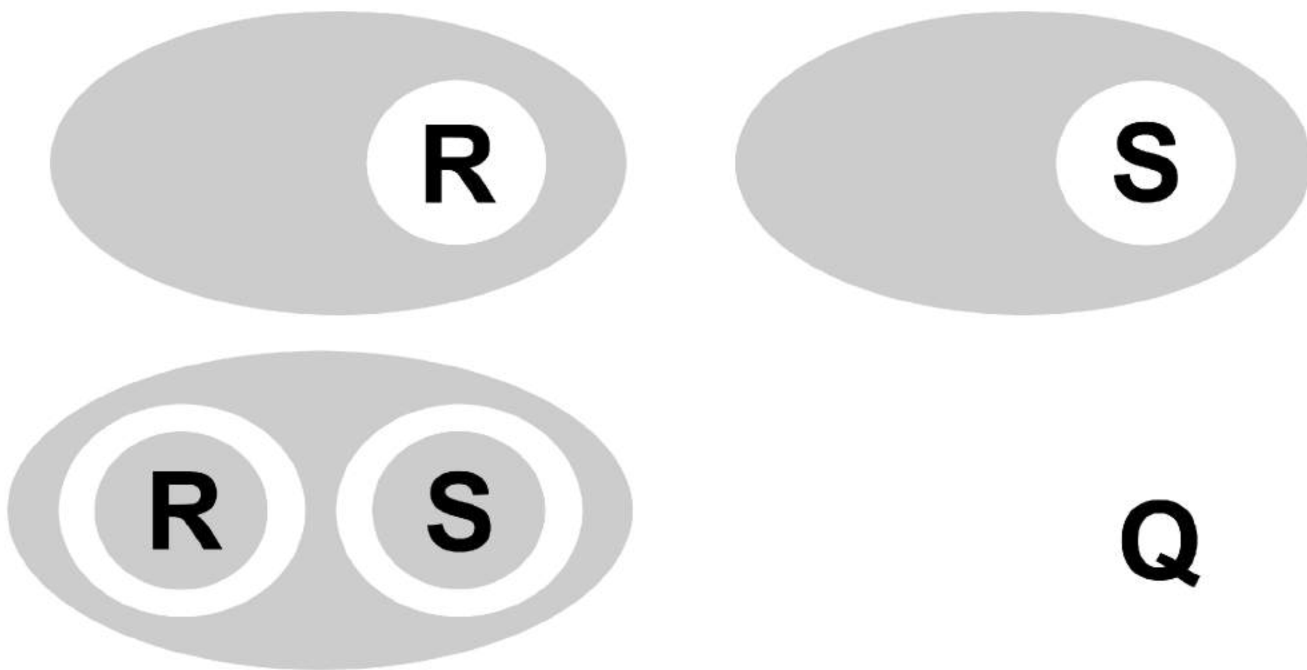
Hand-out on Existential Graphs, question 20



Deiterate

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 20



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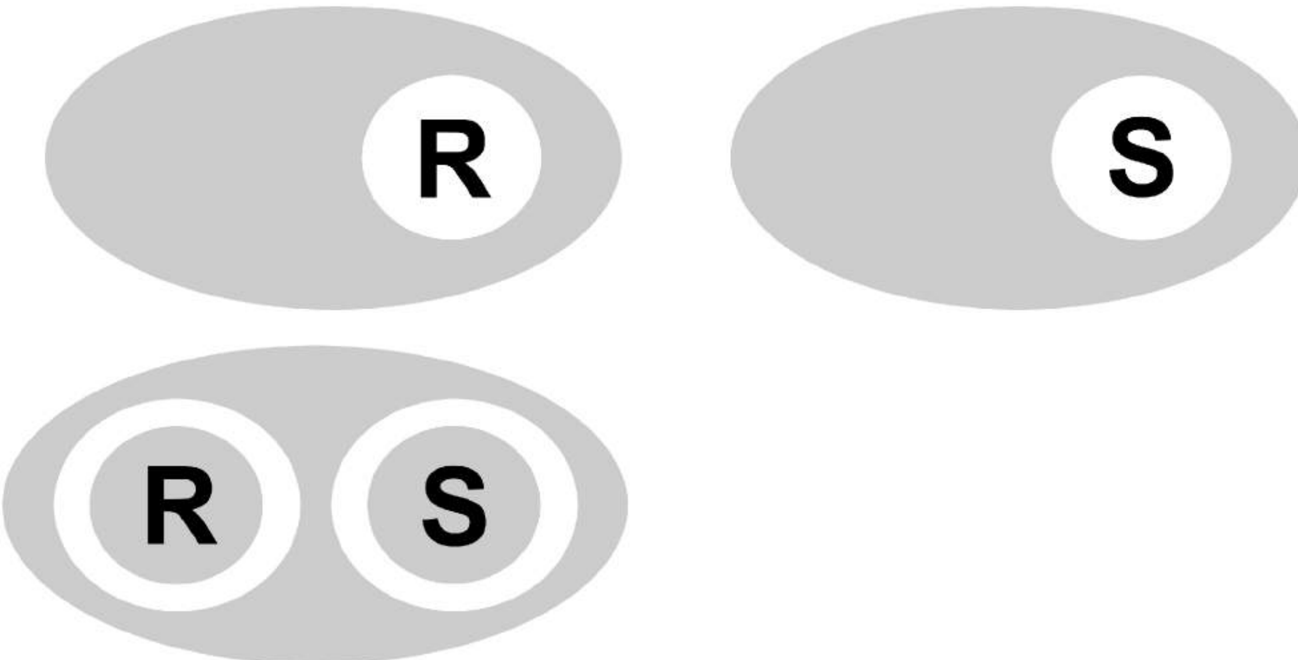
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 20



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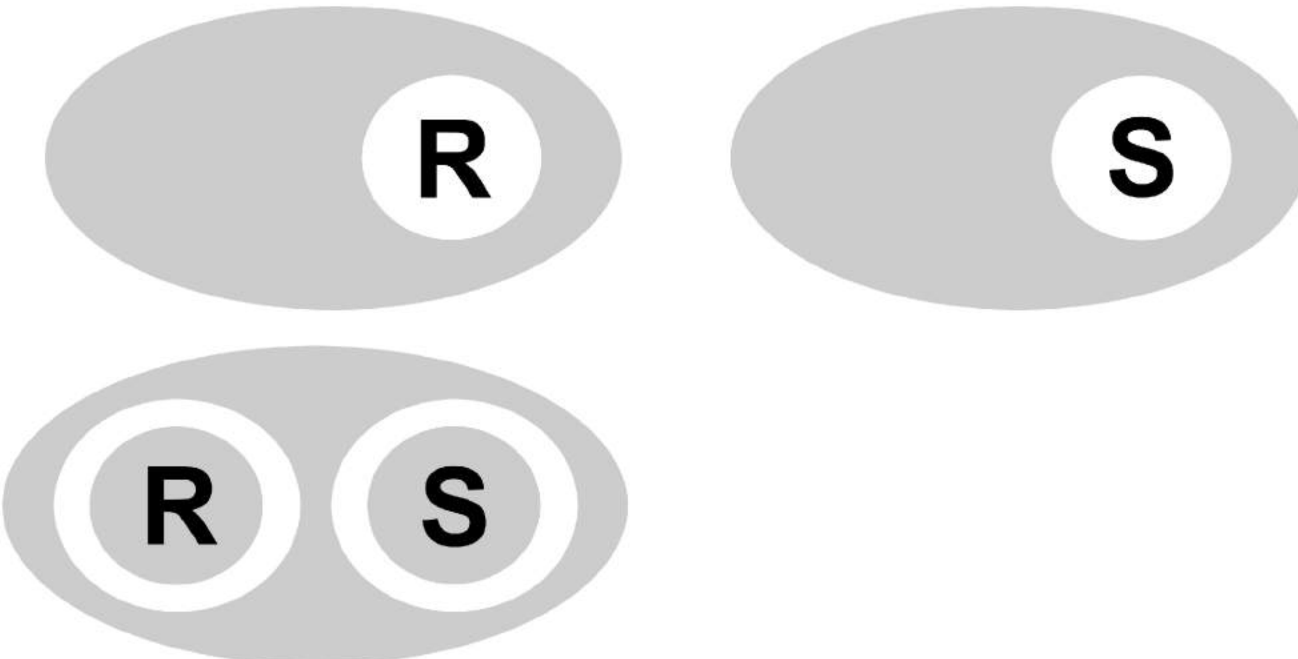
Hand-out on Existential Graphs, question 20



Contrapiction

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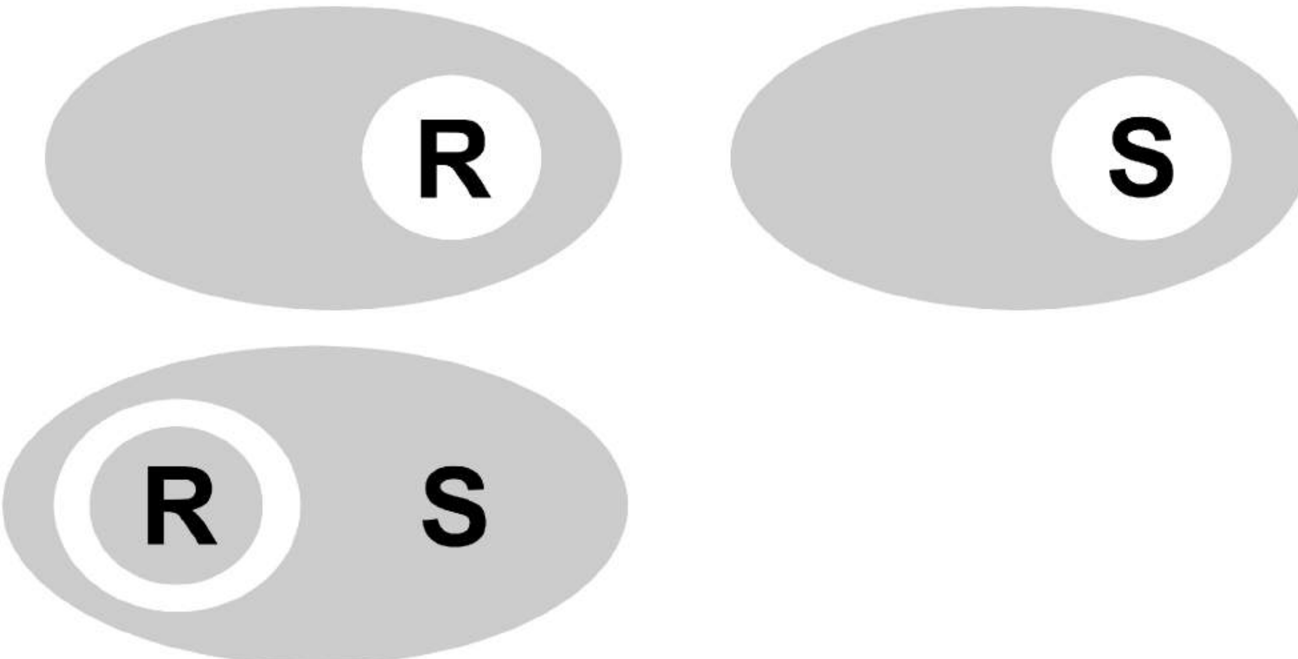
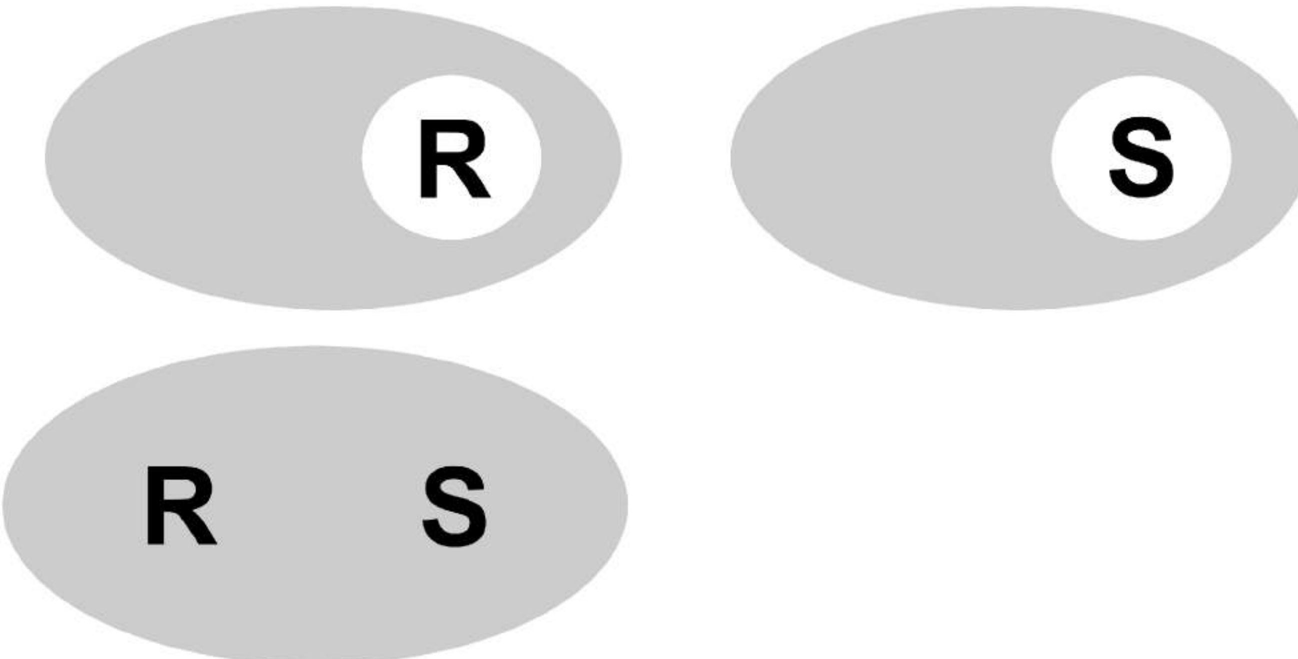
Hand-out on Existential Graphs, question 20



Double cut

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 20



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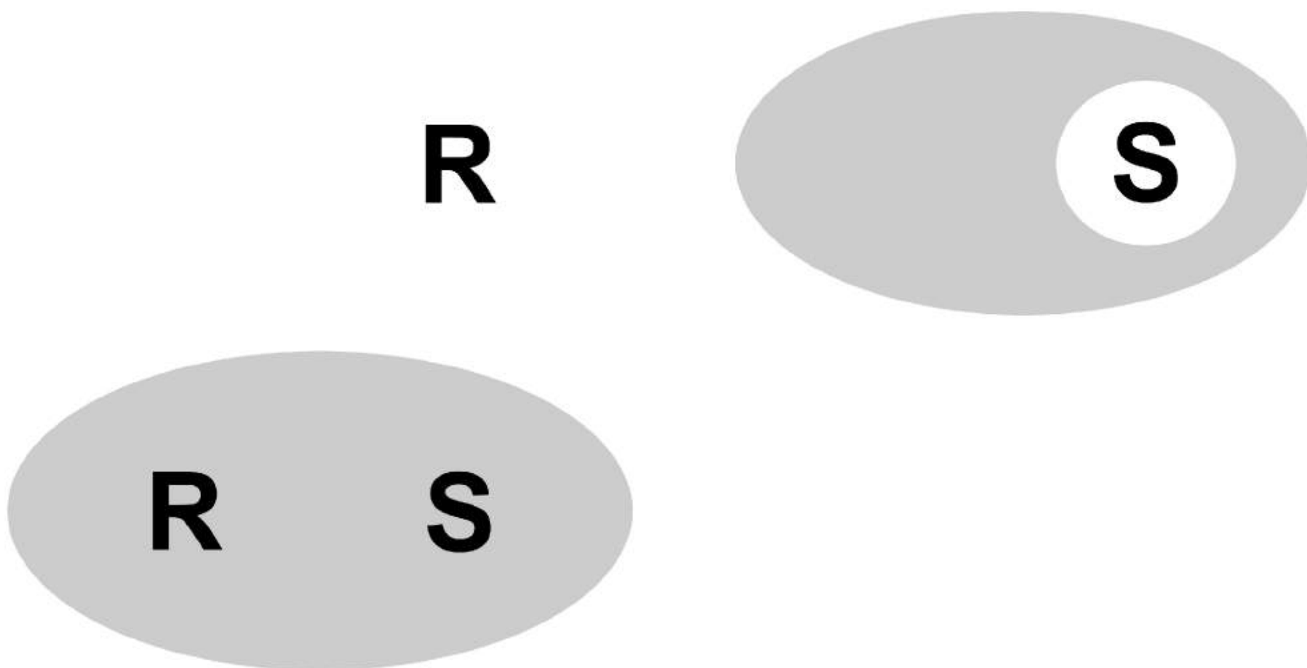
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 20



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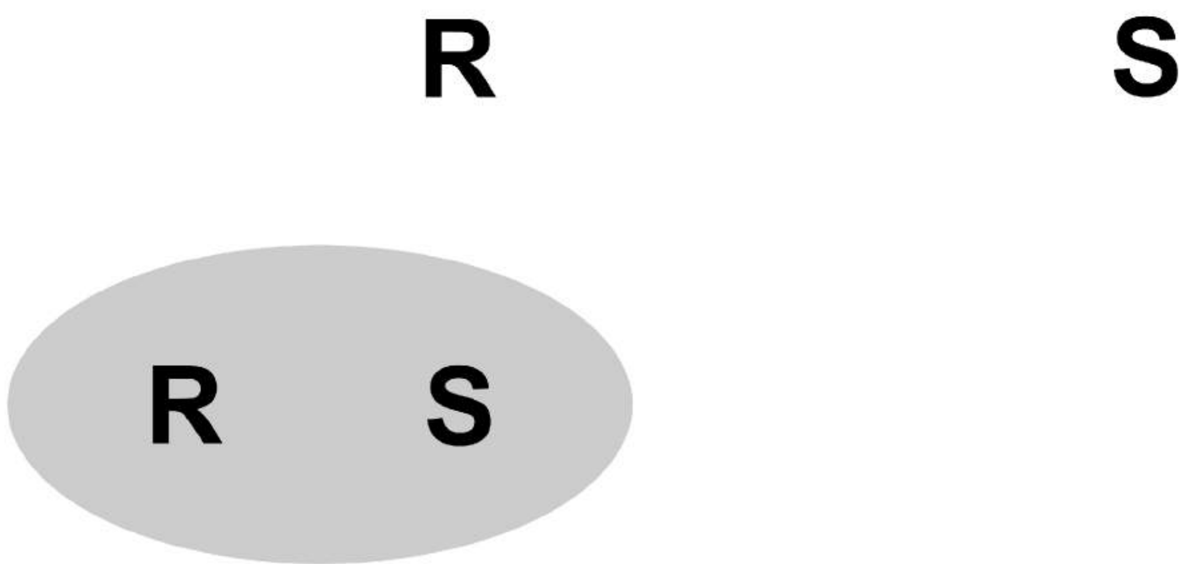
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 20



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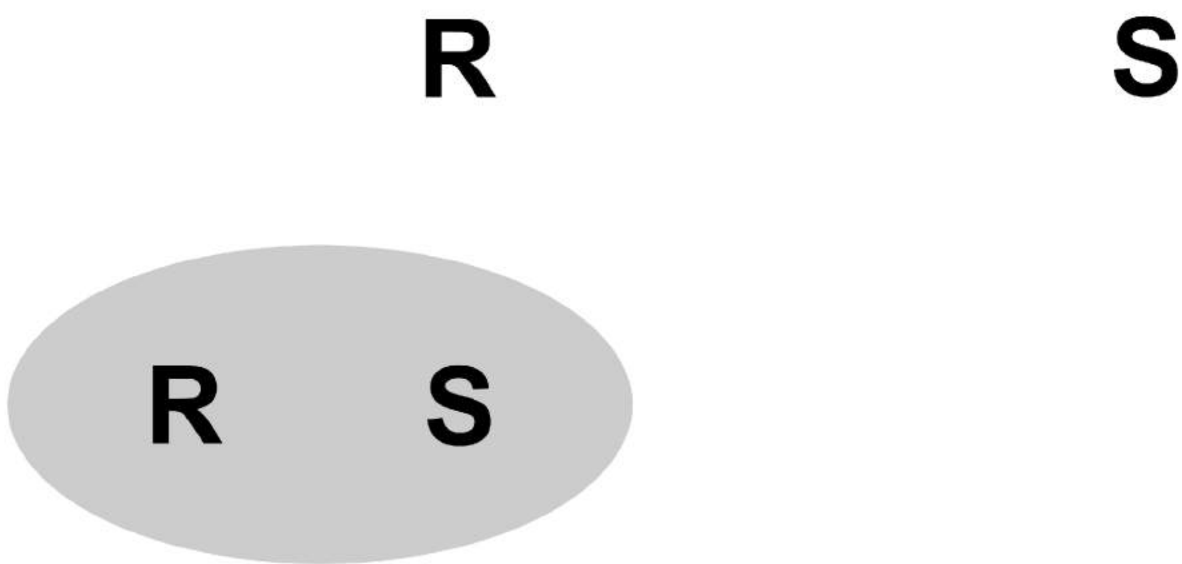
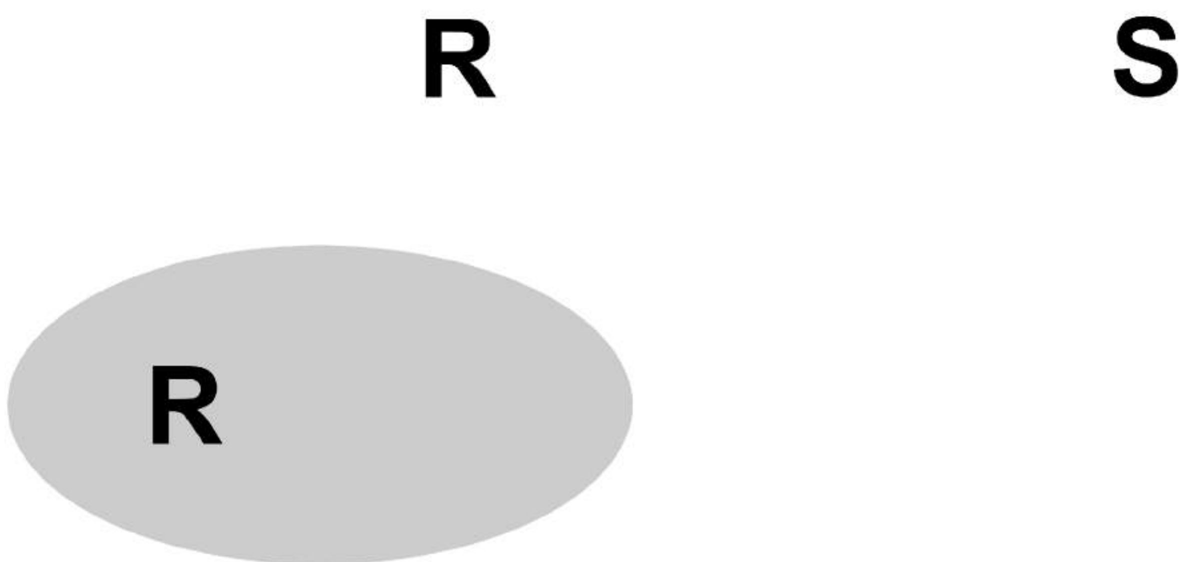
Hand-out on Existential Graphs, question 20



Contrapiction

Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 20



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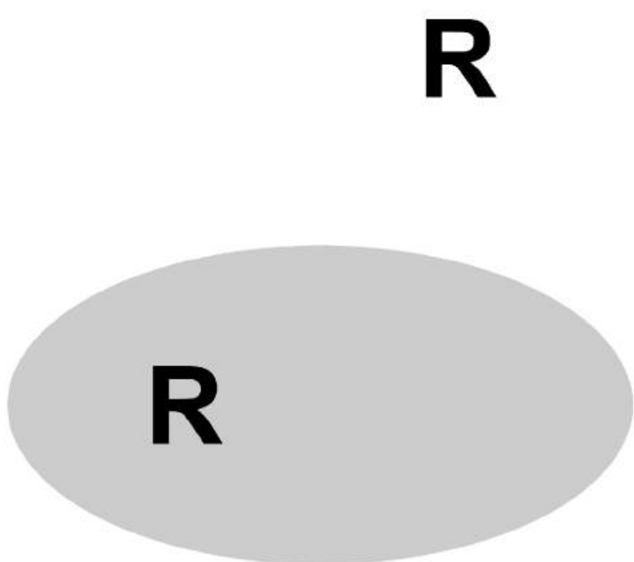
Prepared by Dr. Marc Champagne for PHIL 1150

Hand-out on Existential Graphs, question 20



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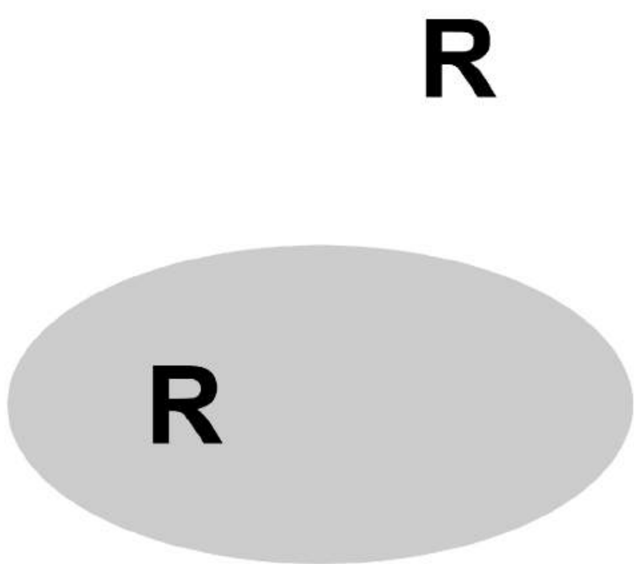
Prepared by Dr. Marc Champagne for PHIL 1150



Contrapiction

Second Hand-out on Existential Graphs, question 1

Premises

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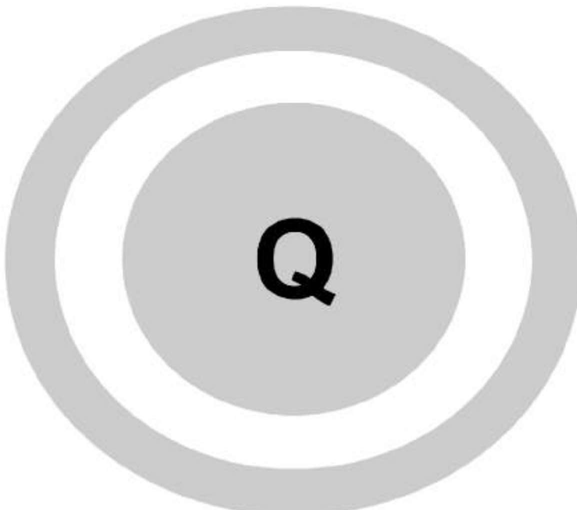
Second Hand-out on Existential Graphs, question 1



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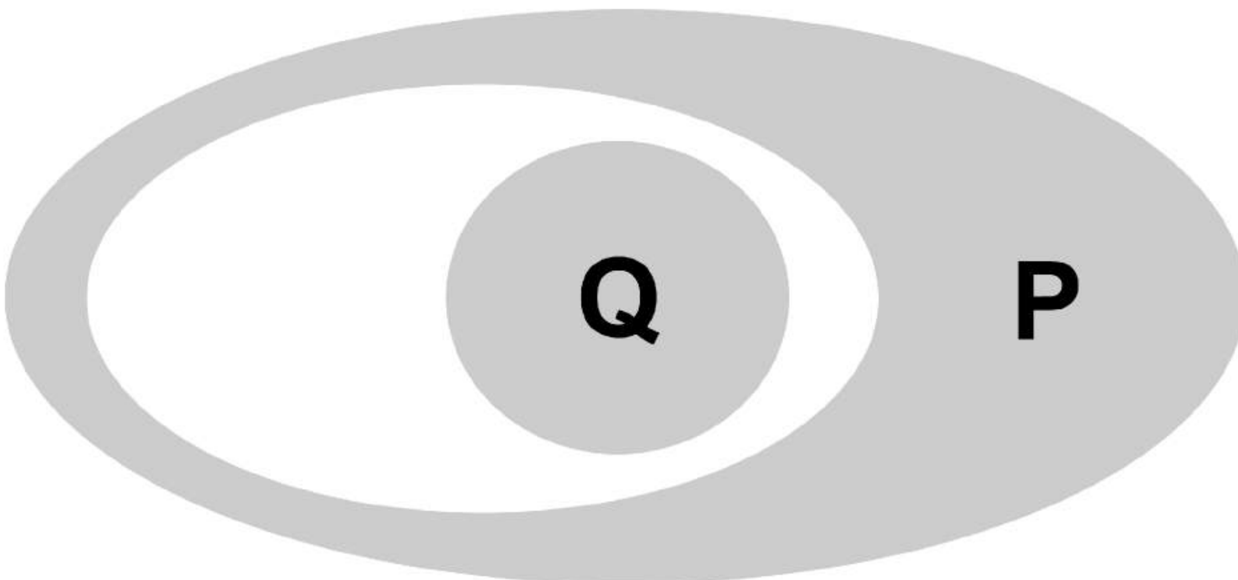
Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 1



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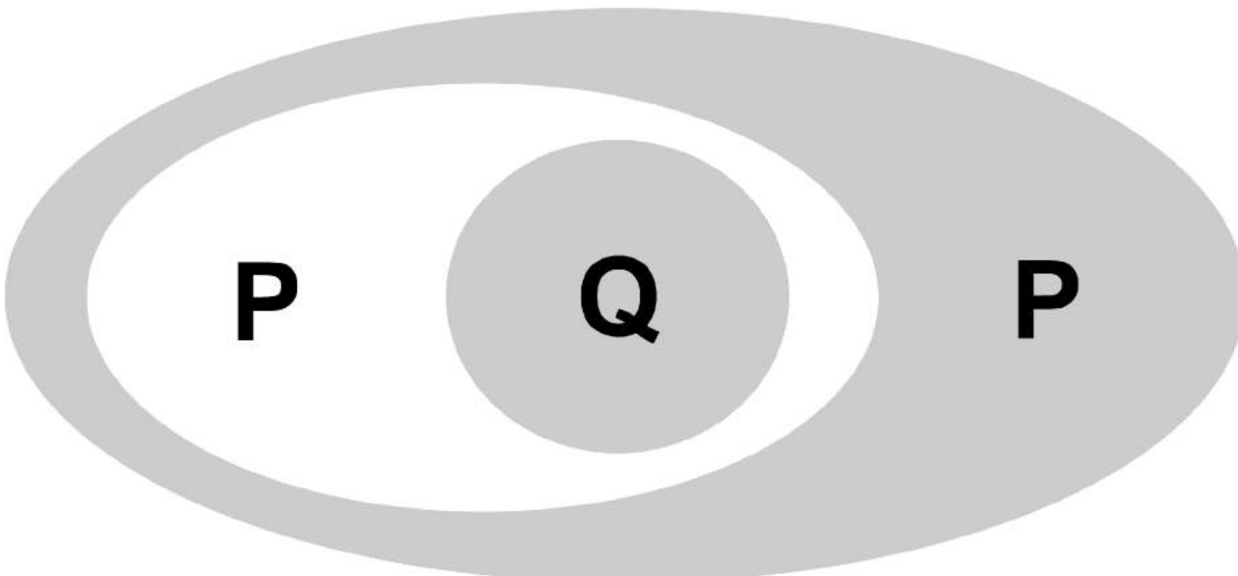
Prepared by Dr. Marc Champagne for PHIL 1150

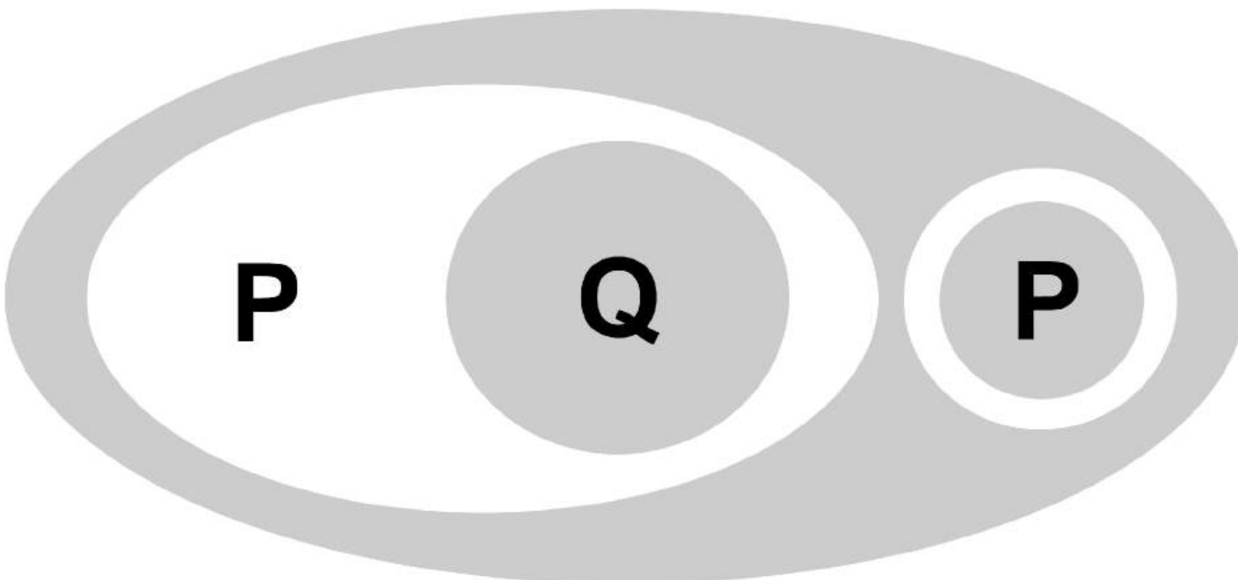
Second Hand-out on Existential Graphs, question 1



Iterate

Prepared by Dr. Marc Champagne for PHIL 1150

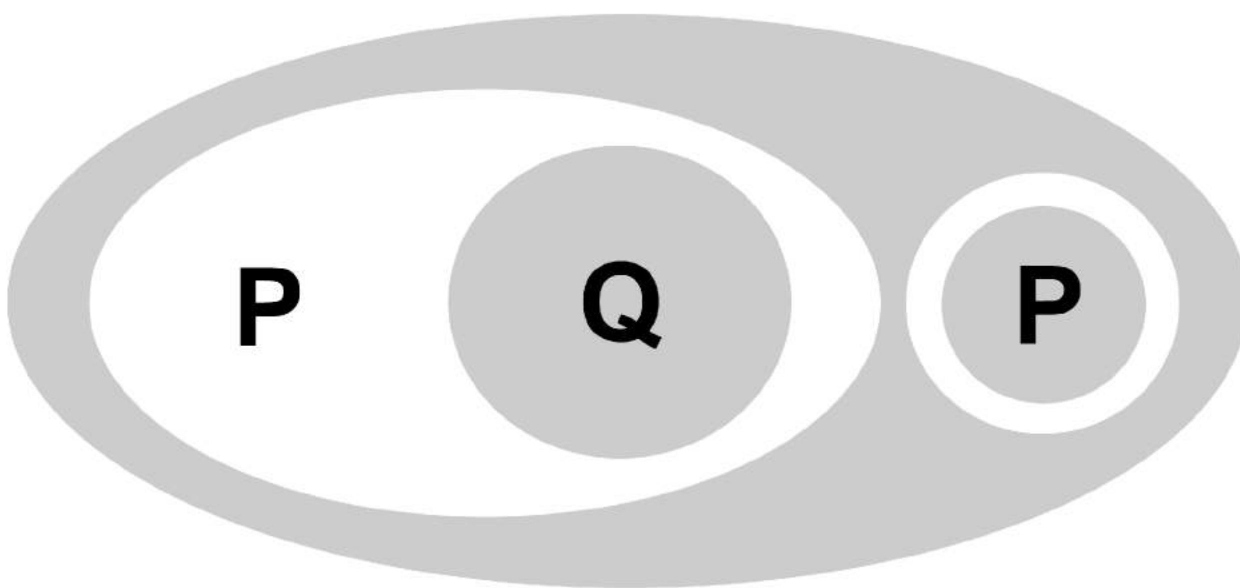
Second Hand-out on Existential Graphs, question 1



Double cut

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 1



Conclusion

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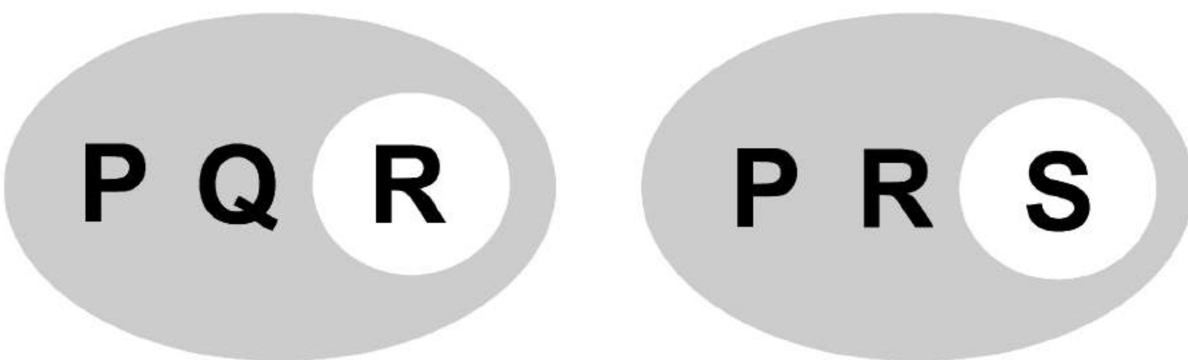
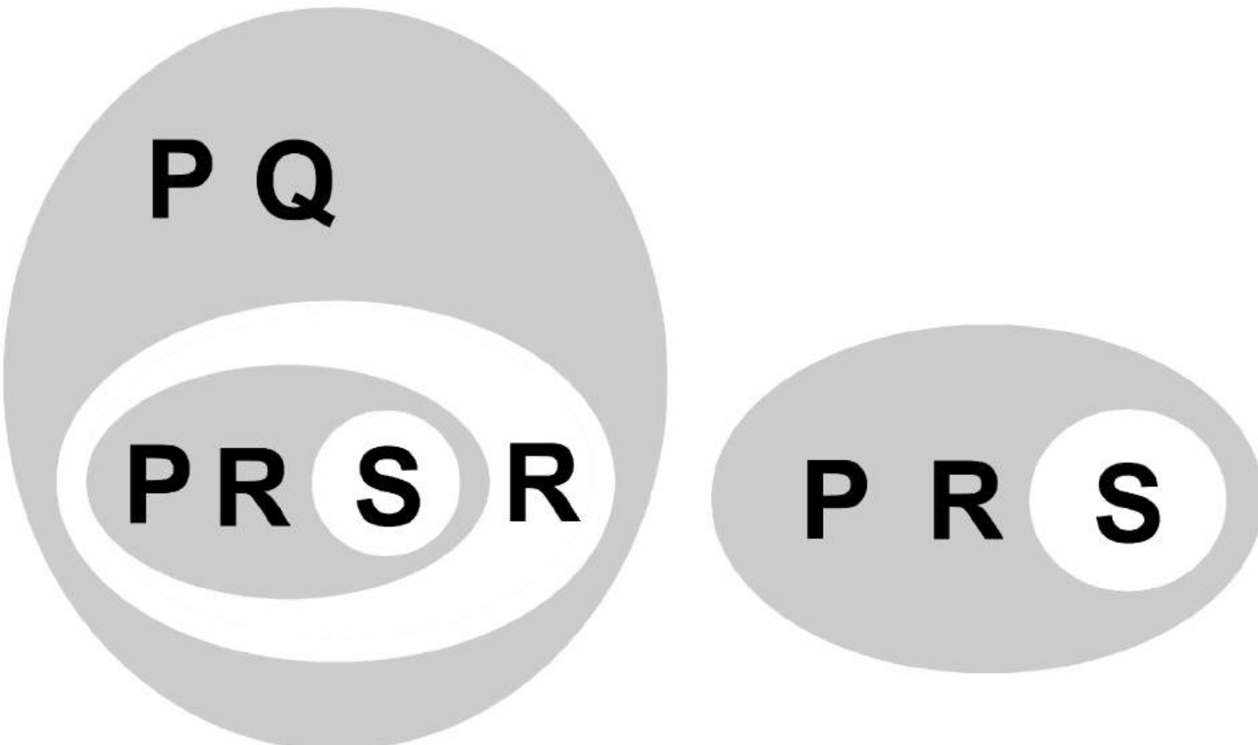
Second Hand-out on Existential Graphs, question 2



Premises

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 2



Iterate

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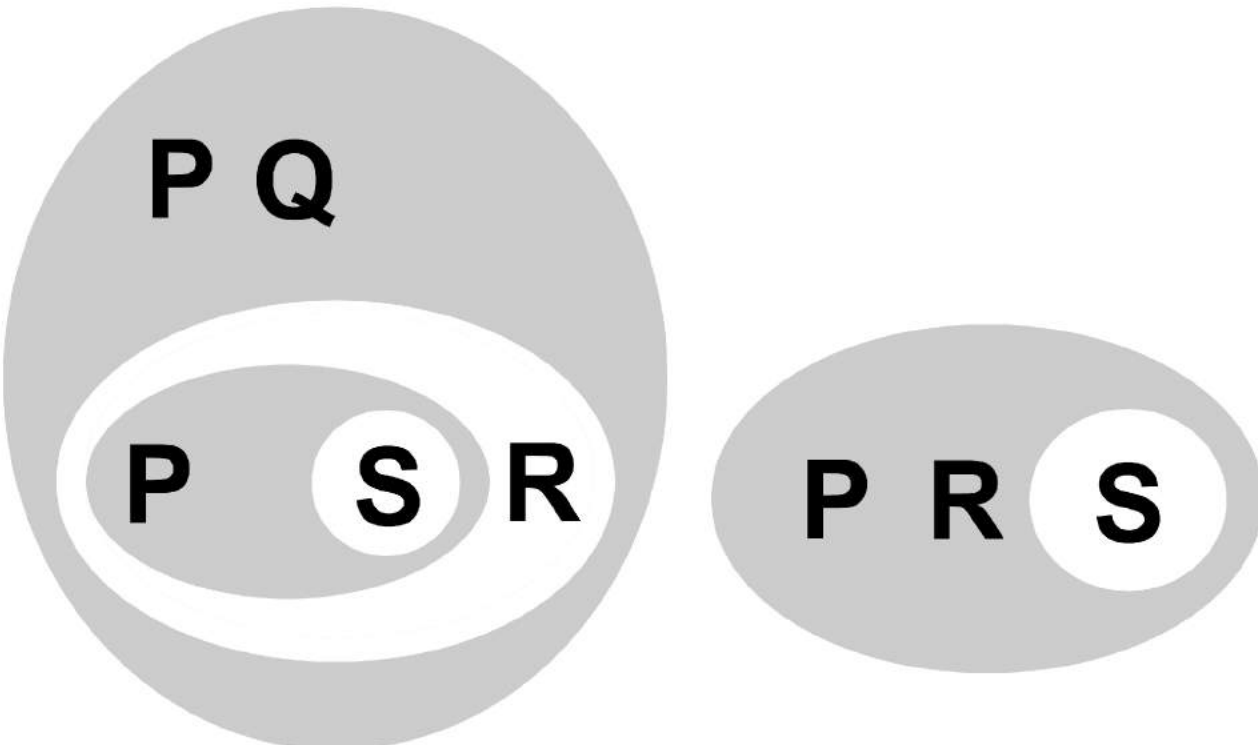
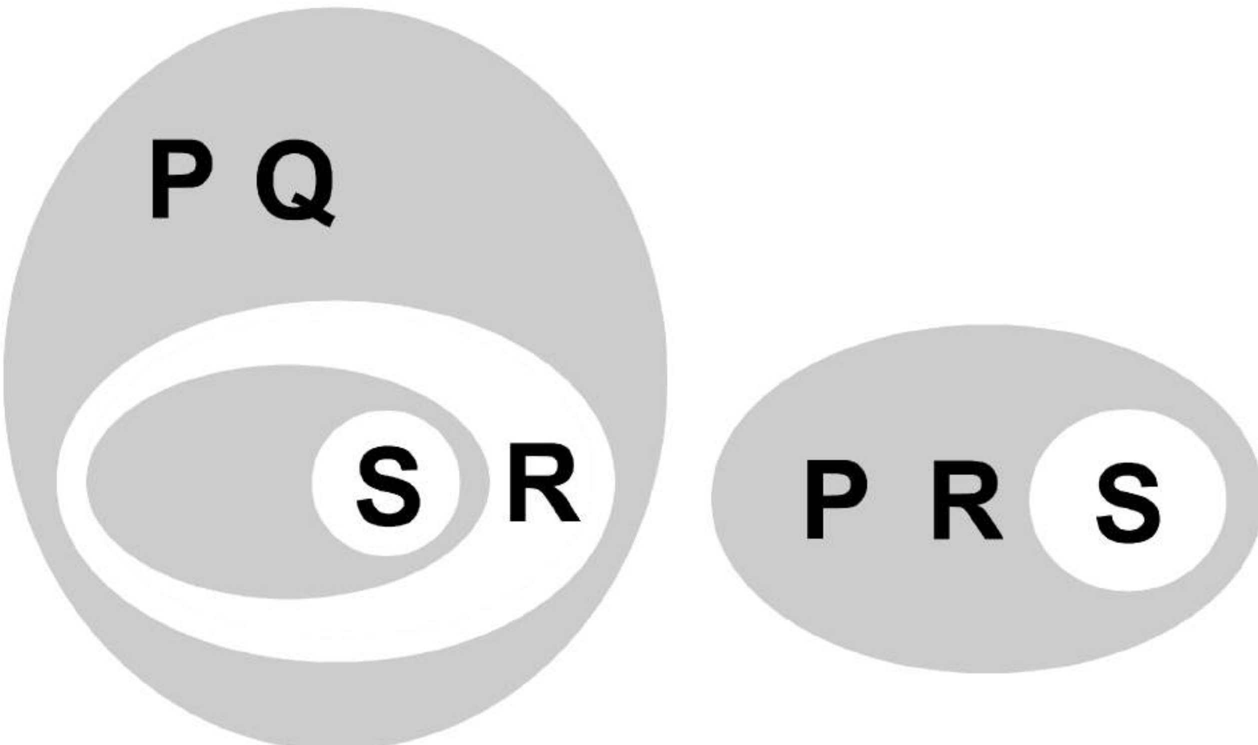
Second Hand-out on Existential Graphs, question 2



Deiterate

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 2



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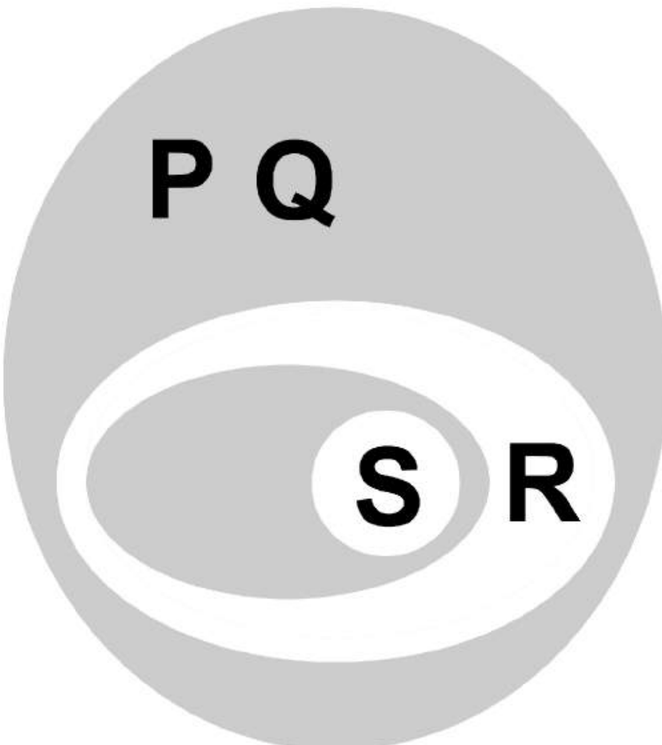
Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 2



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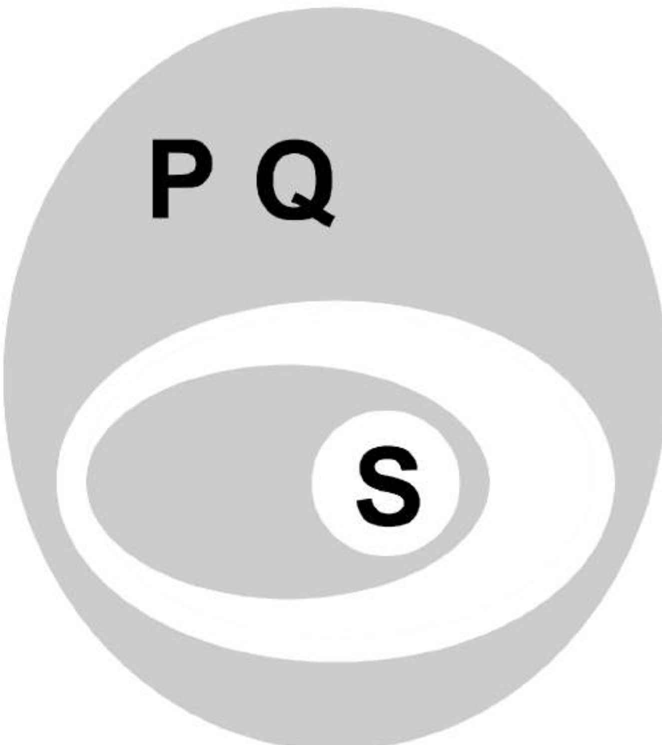
Second Hand-out on Existential Graphs, question 2



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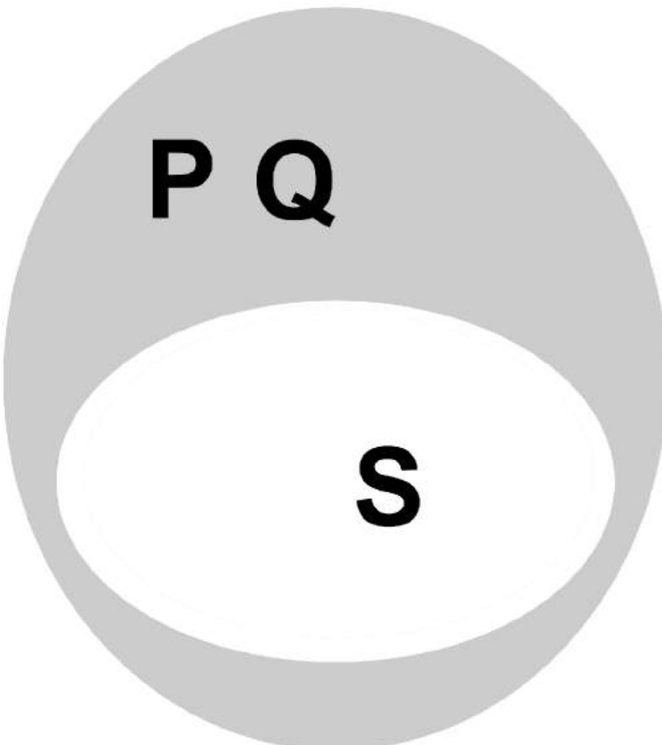
Second Hand-out on Existential Graphs, question 2



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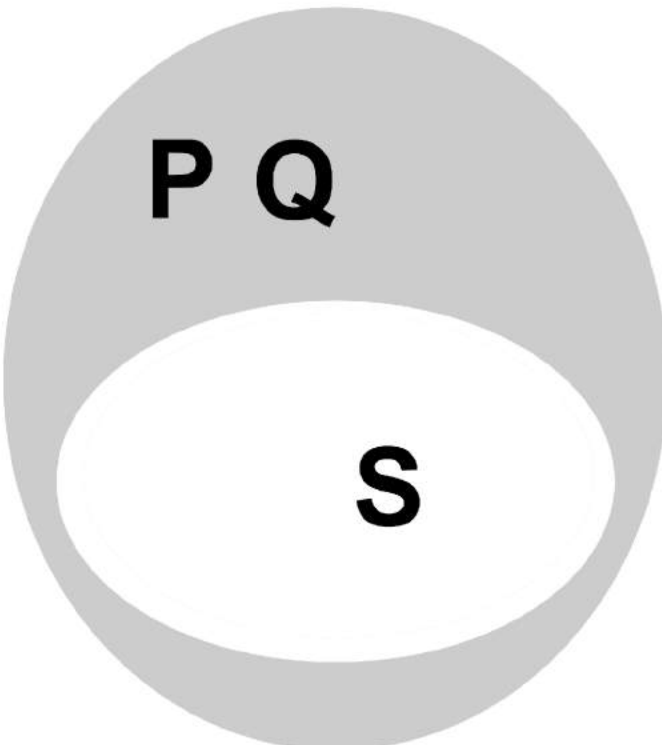
Second Hand-out on Existential Graphs, question 2



Conclusion

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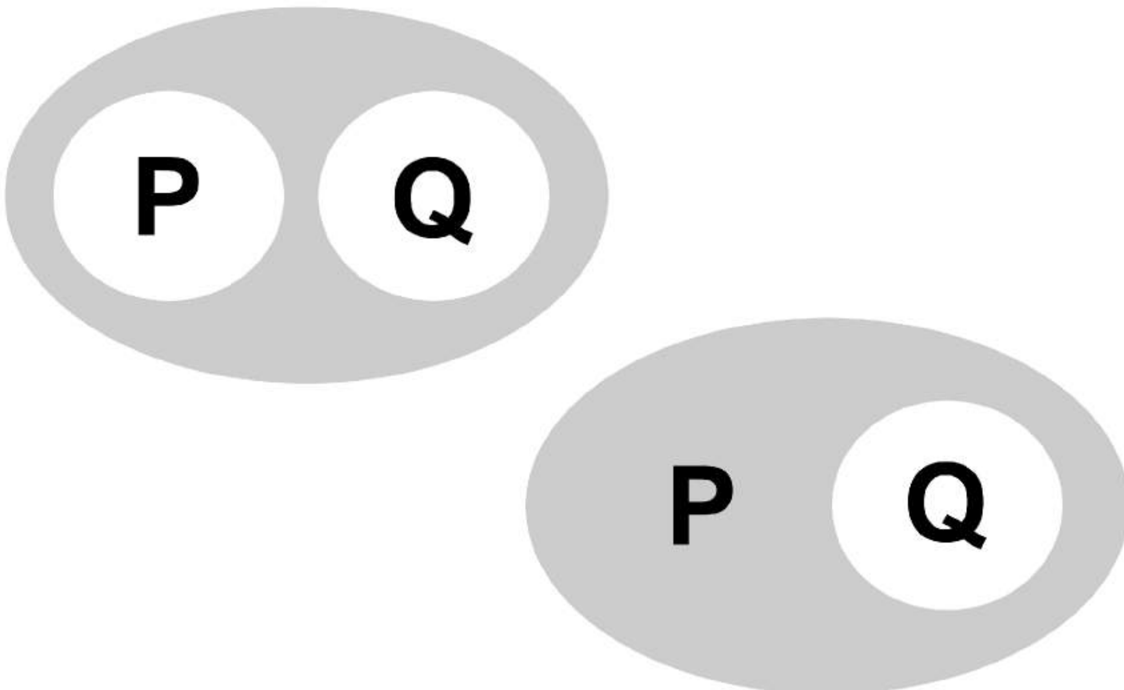
Second Hand-out on Existential Graphs, question 3



Premises

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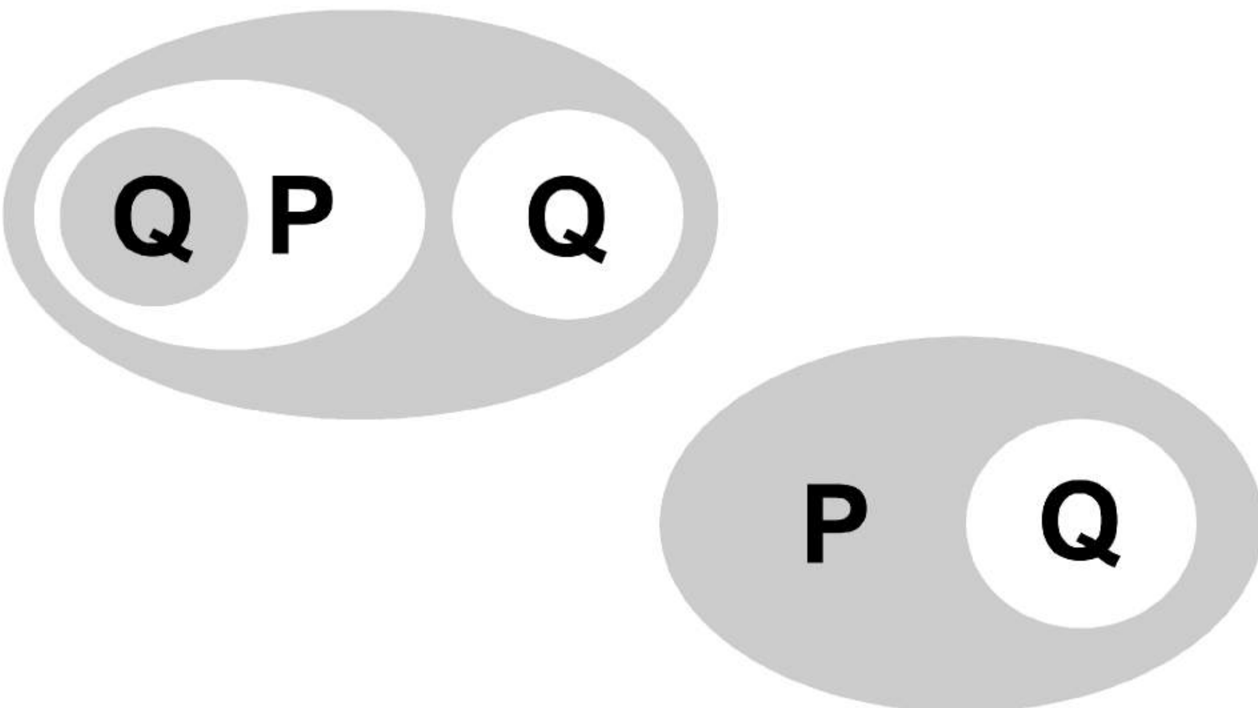
Second Hand-out on Existential Graphs, question 3



Iterate

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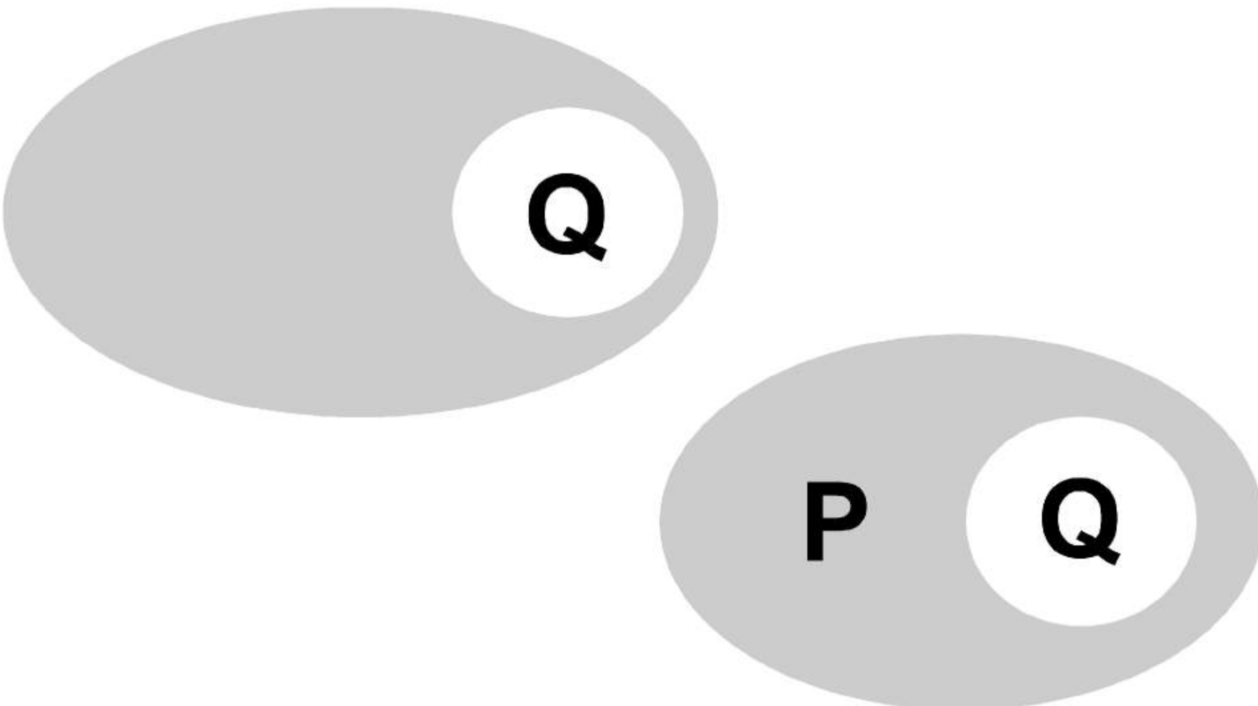
Second Hand-out on Existential Graphs, question 3



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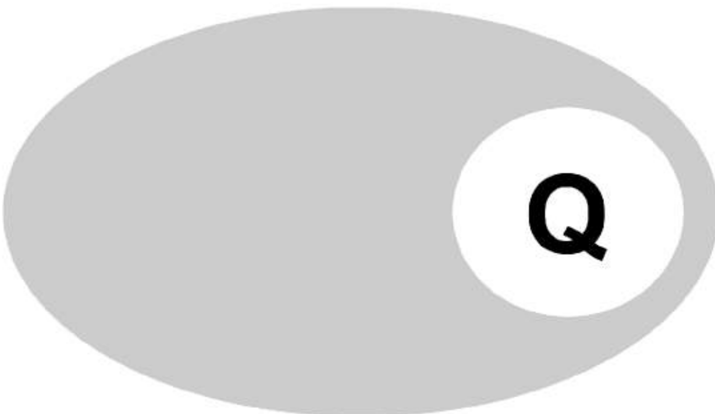
Second Hand-out on Existential Graphs, question 3



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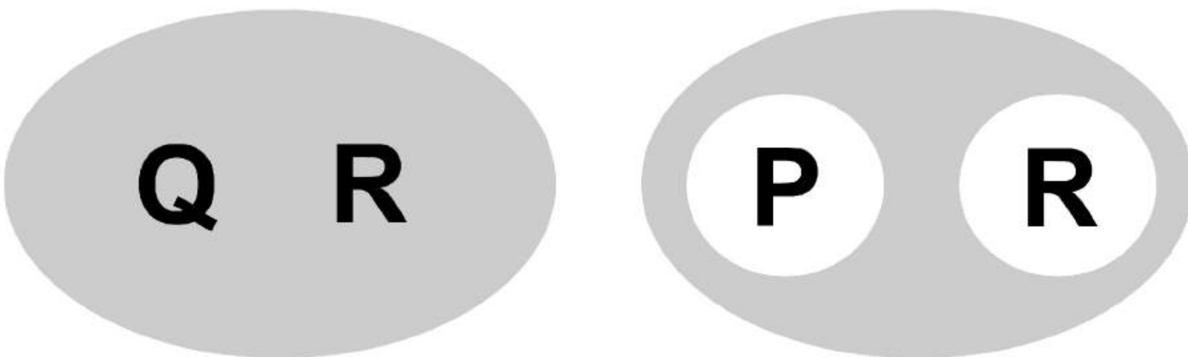
Q

Double cut

Q

Conclusion

Second Hand-out on Existential Graphs, question 4



Premises

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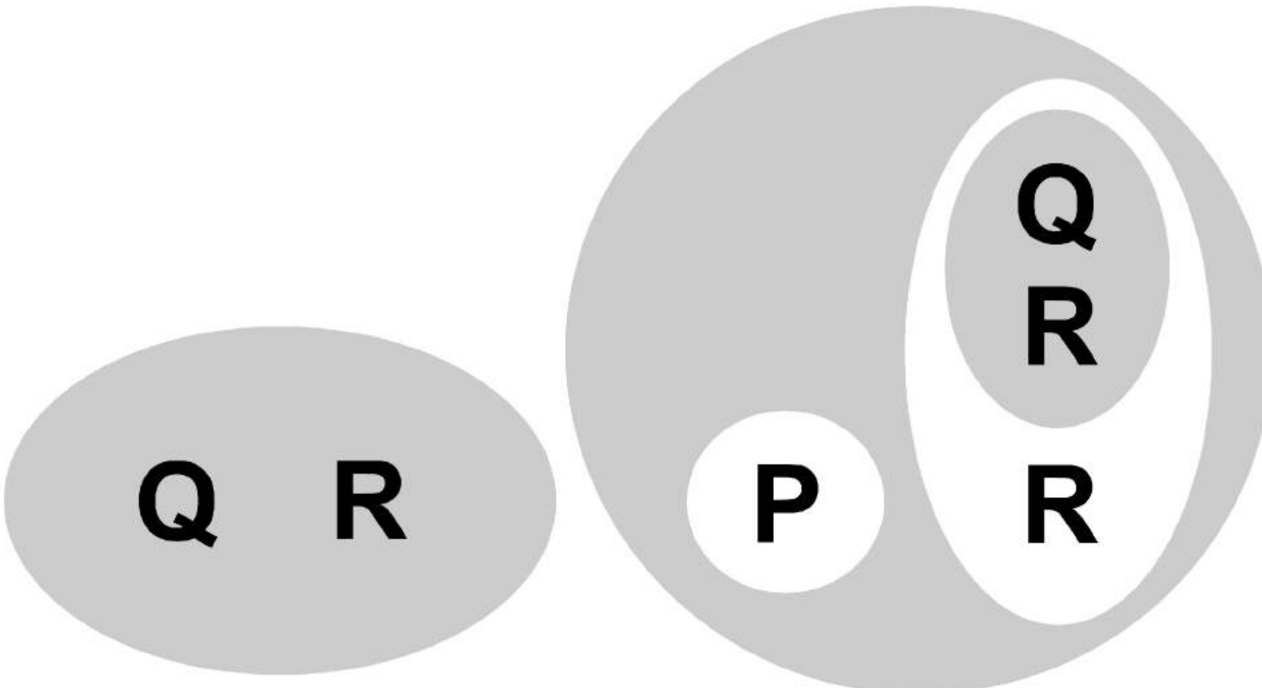
Second Hand-out on Existential Graphs, question 4



Iterate

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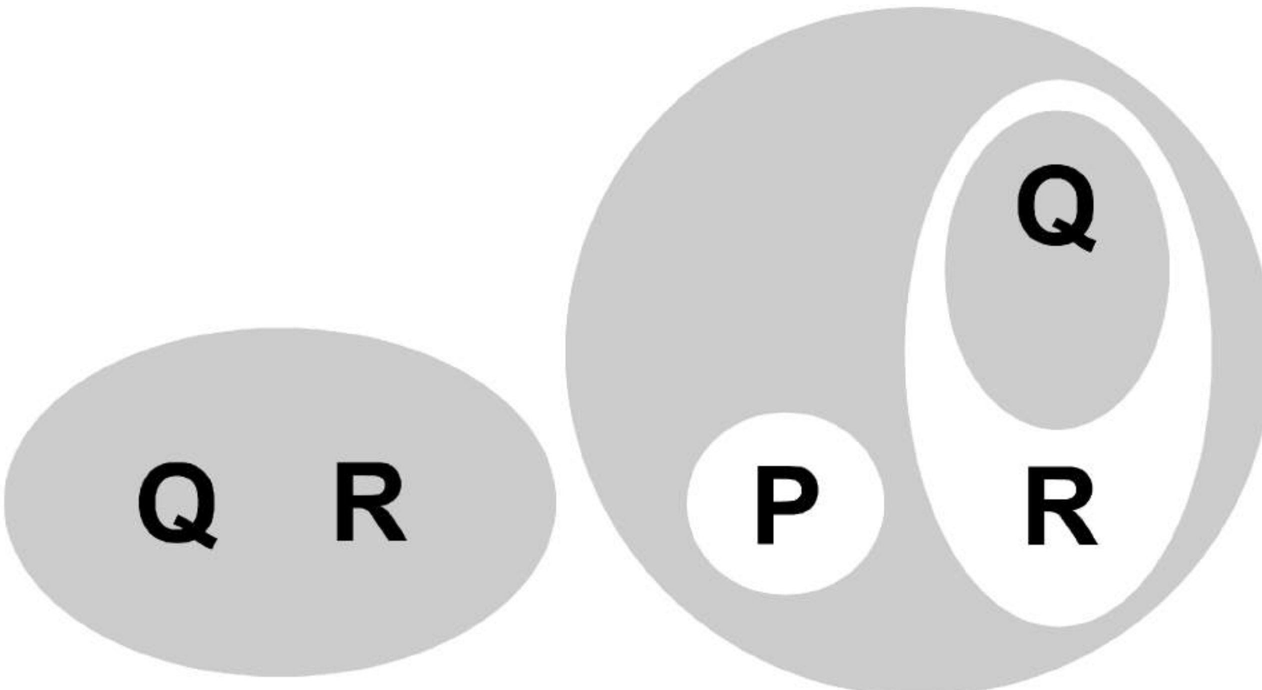
Second Hand-out on Existential Graphs, question 4



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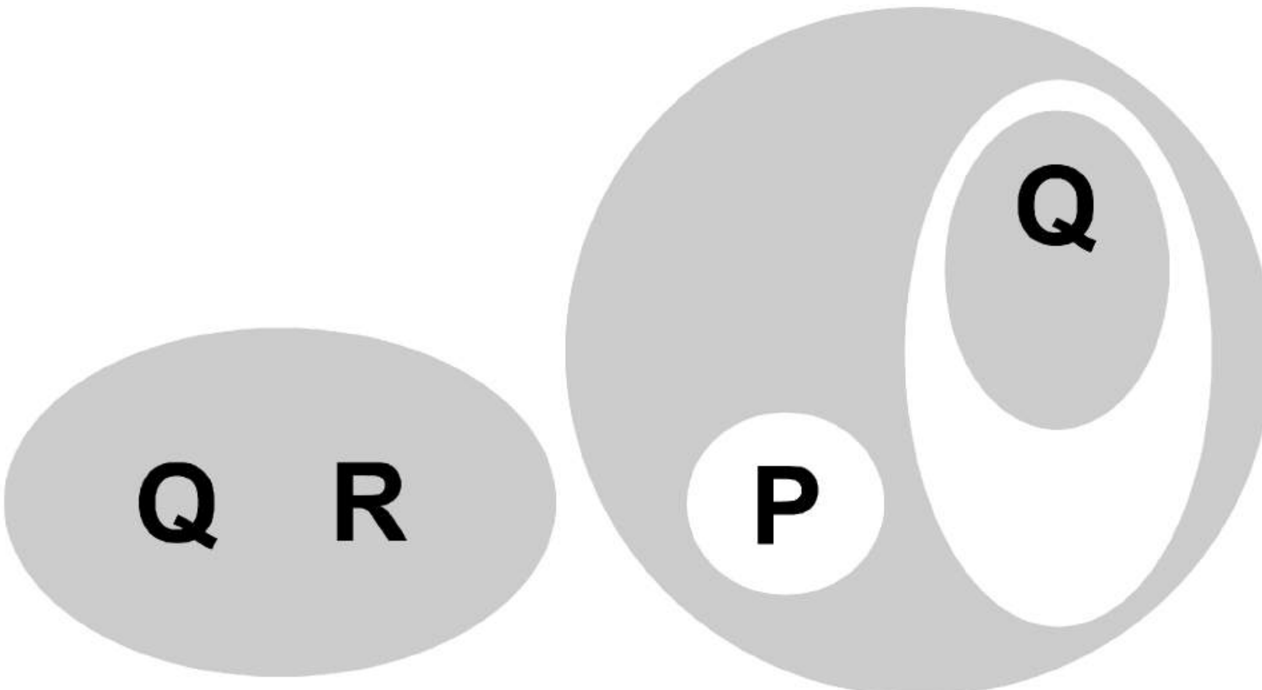
Second Hand-out on Existential Graphs, question 4



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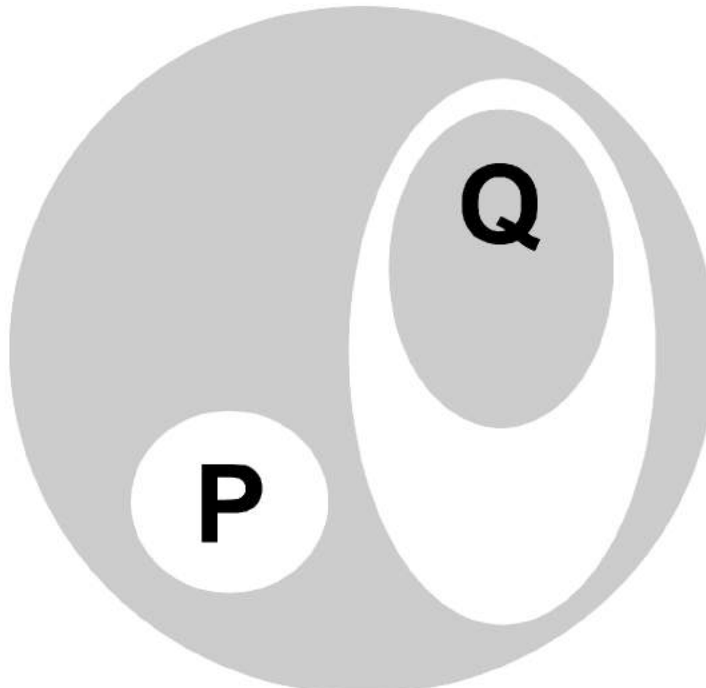
Second Hand-out on Existential Graphs, question 4



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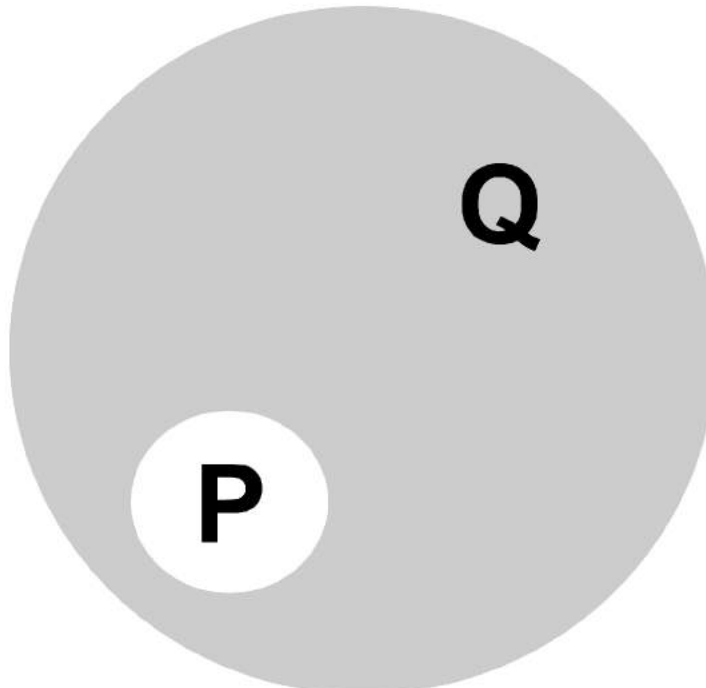
Second Hand-out on Existential Graphs, question 4



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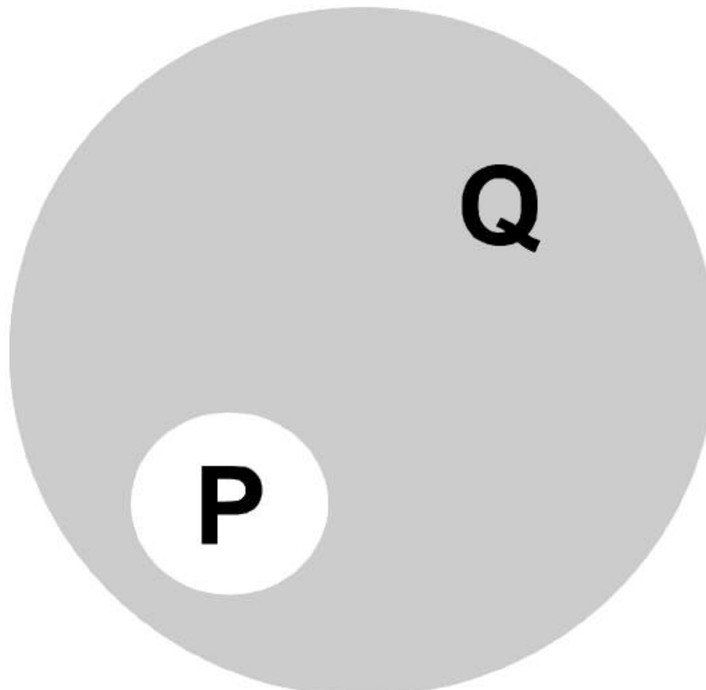
Second Hand-out on Existential Graphs, question 4



Conclusion

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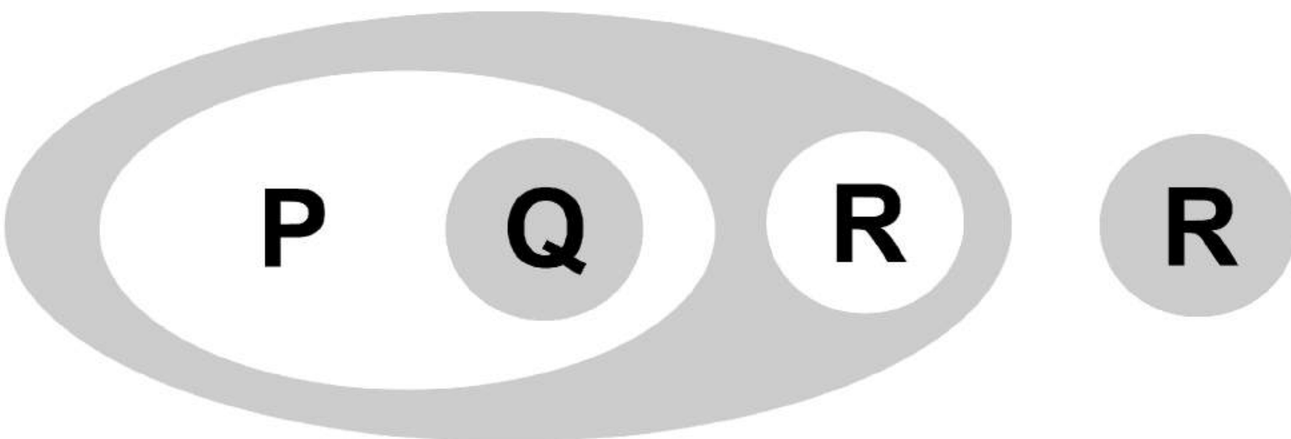
Second Hand-out on Existential Graphs, question 5



Premises

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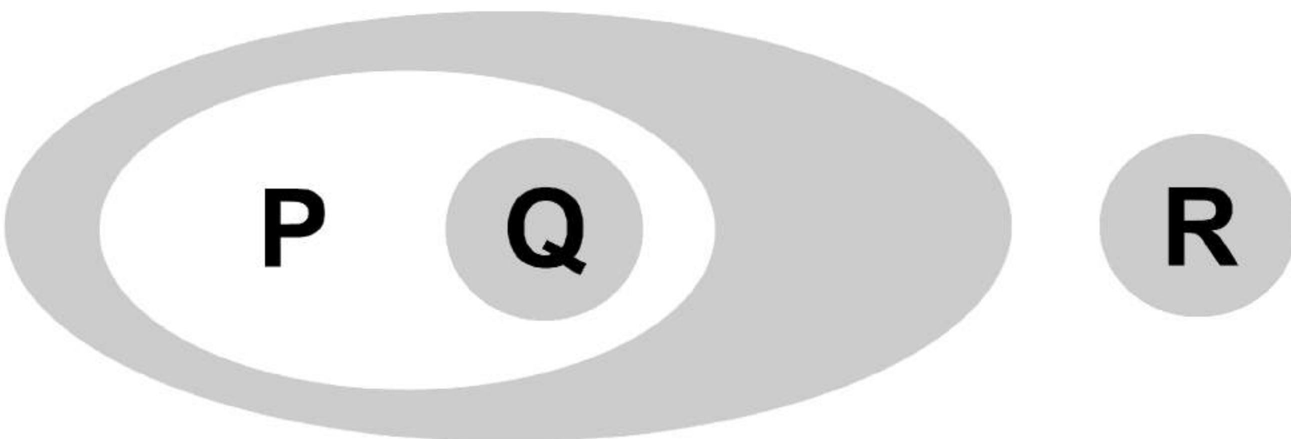
Second Hand-out on Existential Graphs, question 5



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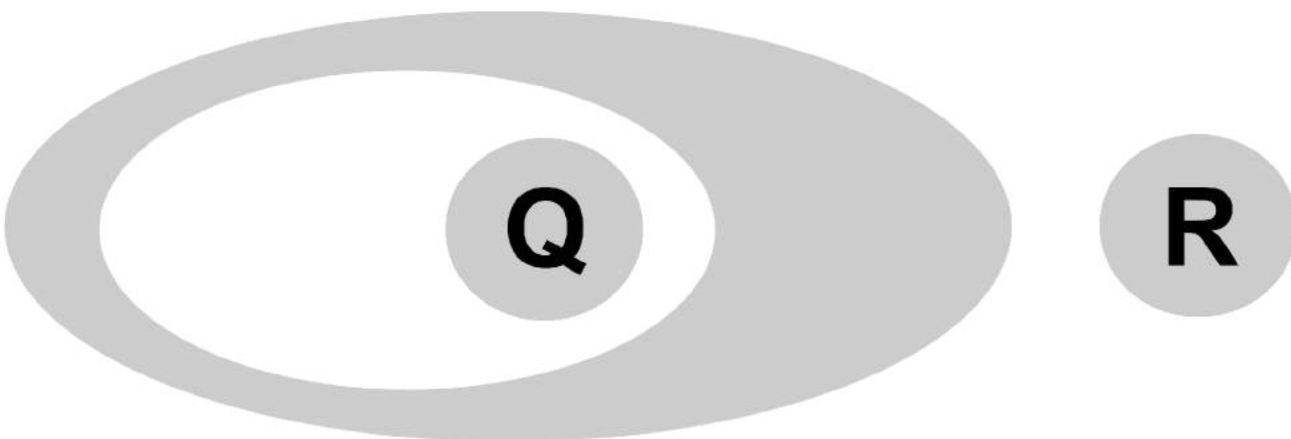
Second Hand-out on Existential Graphs, question 5



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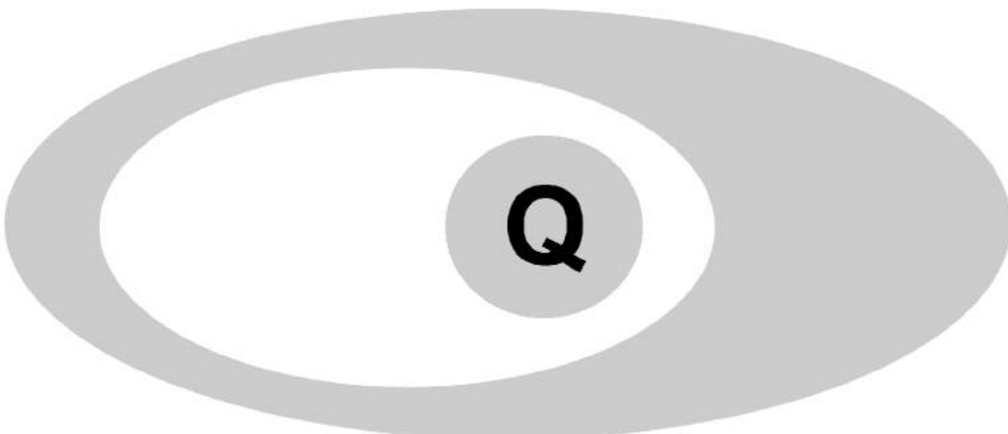
Second Hand-out on Existential Graphs, question 5



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Second Hand-out on Existential Graphs, question 5

Double cut

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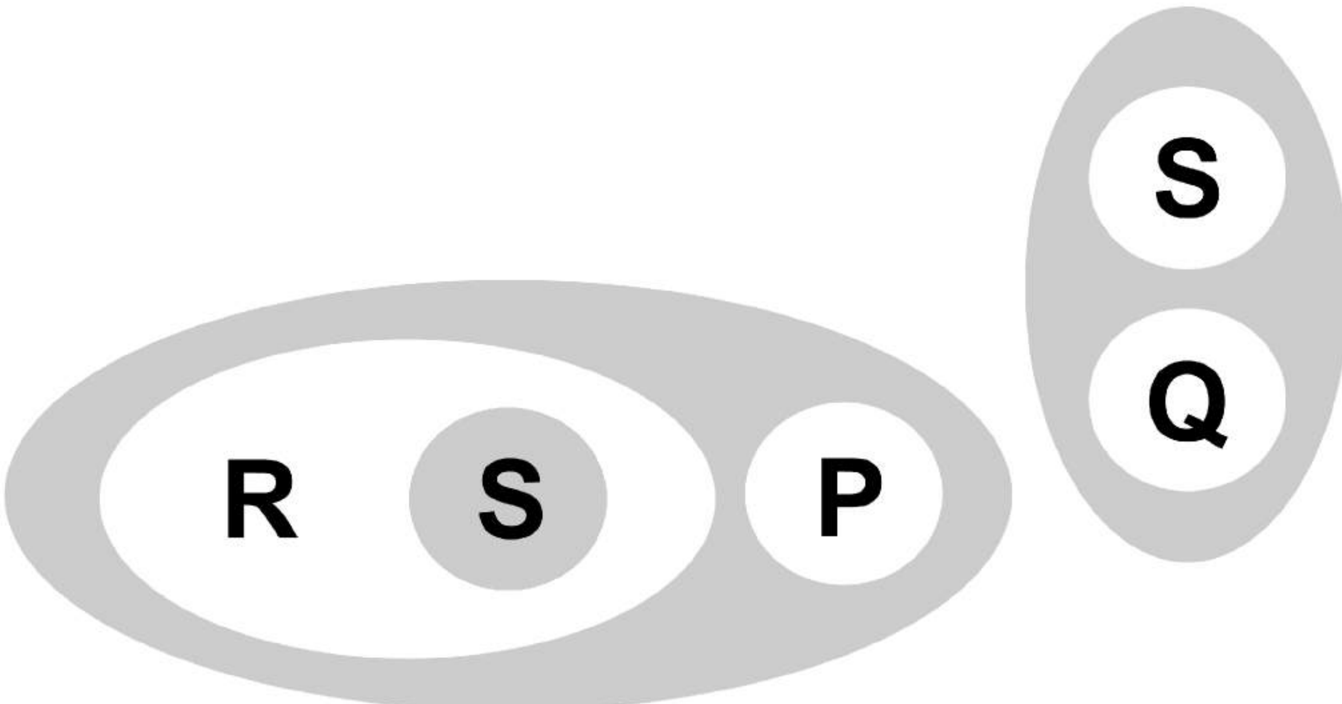
Second Hand-out on Existential Graphs, question 5

Conclusion

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 6



Premises

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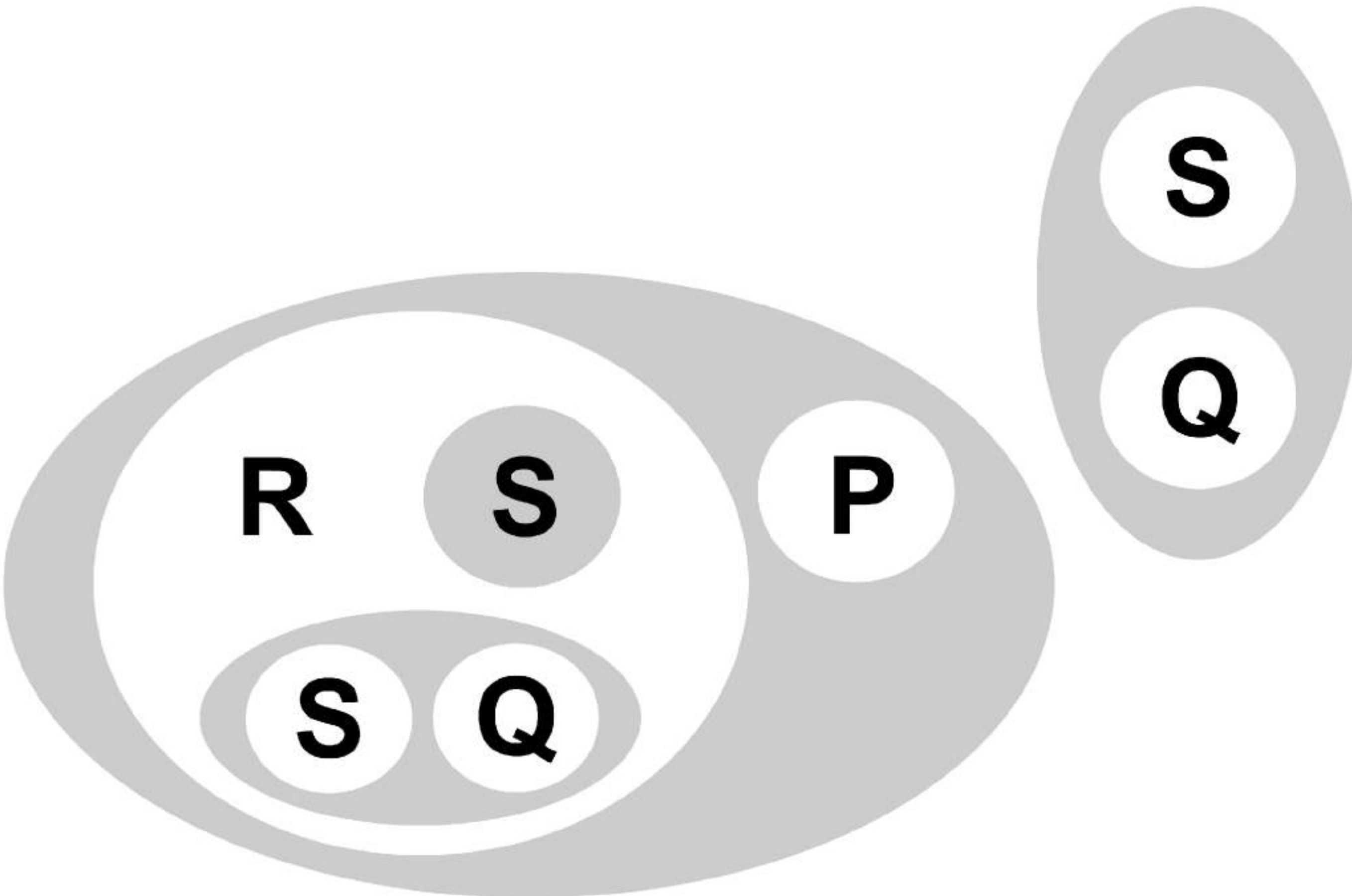
Second Hand-out on Existential Graphs, question 6



Iterate

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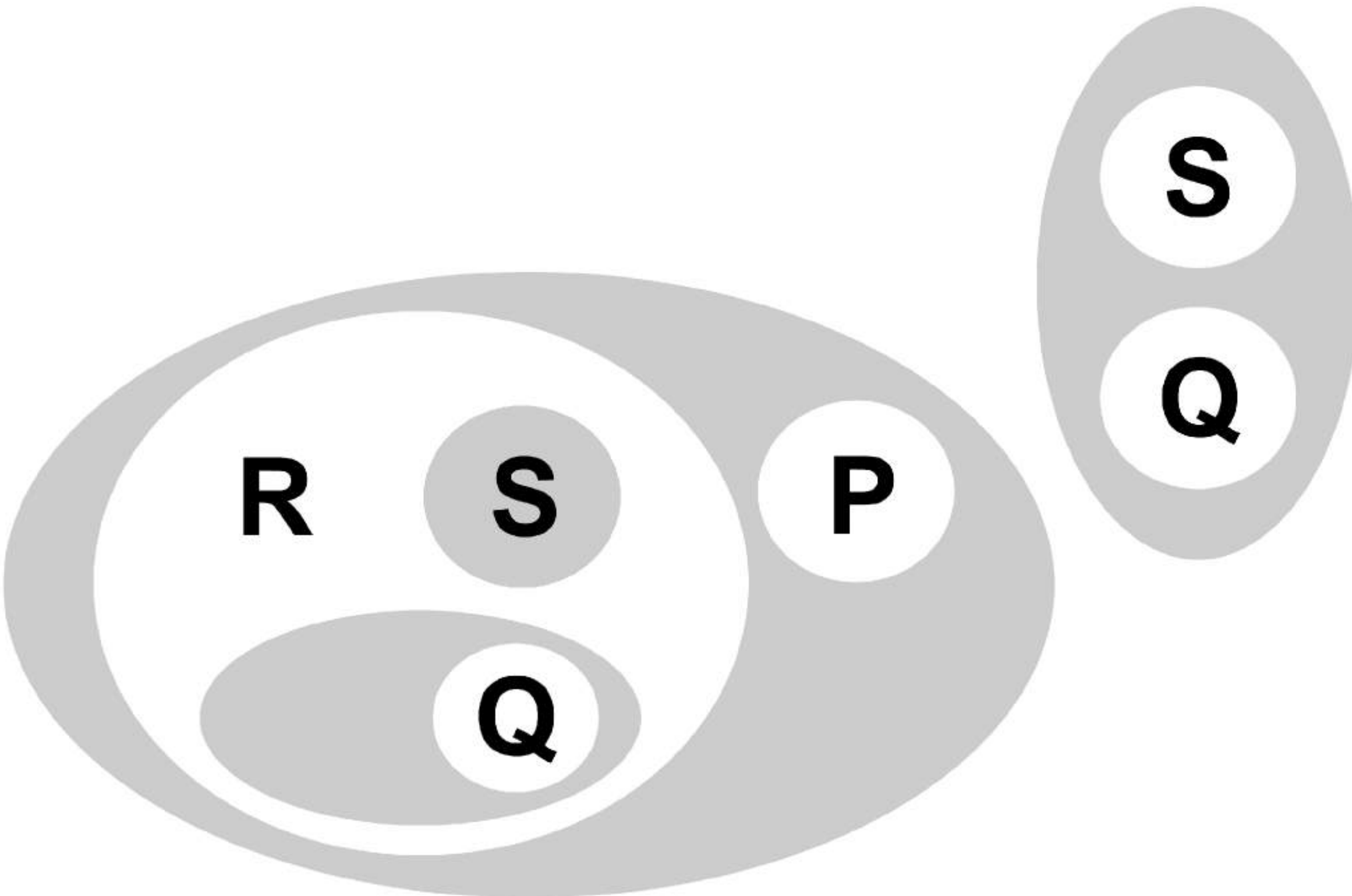
Second Hand-out on Existential Graphs, question 6



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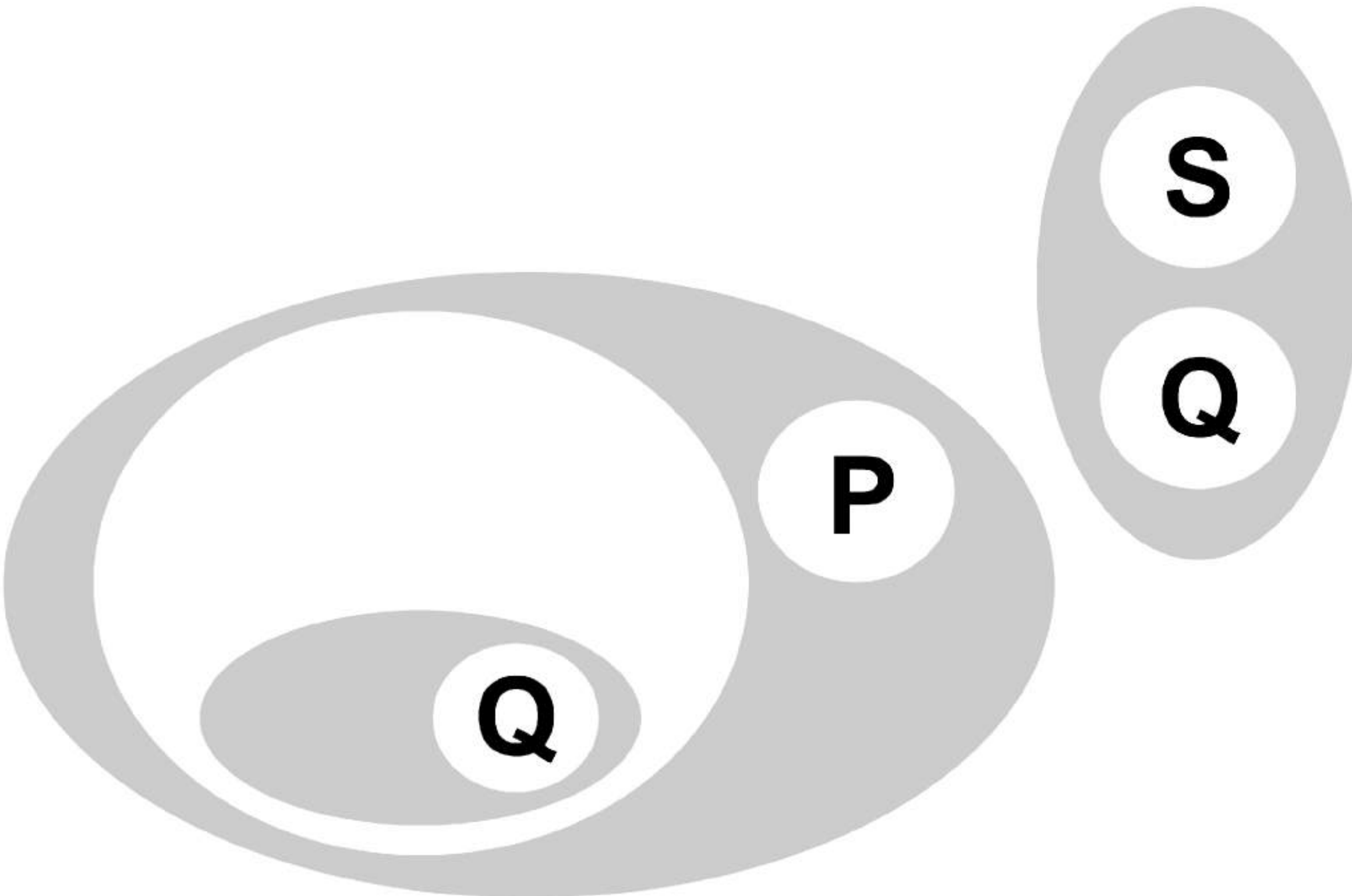
Second Hand-out on Existential Graphs, question 6



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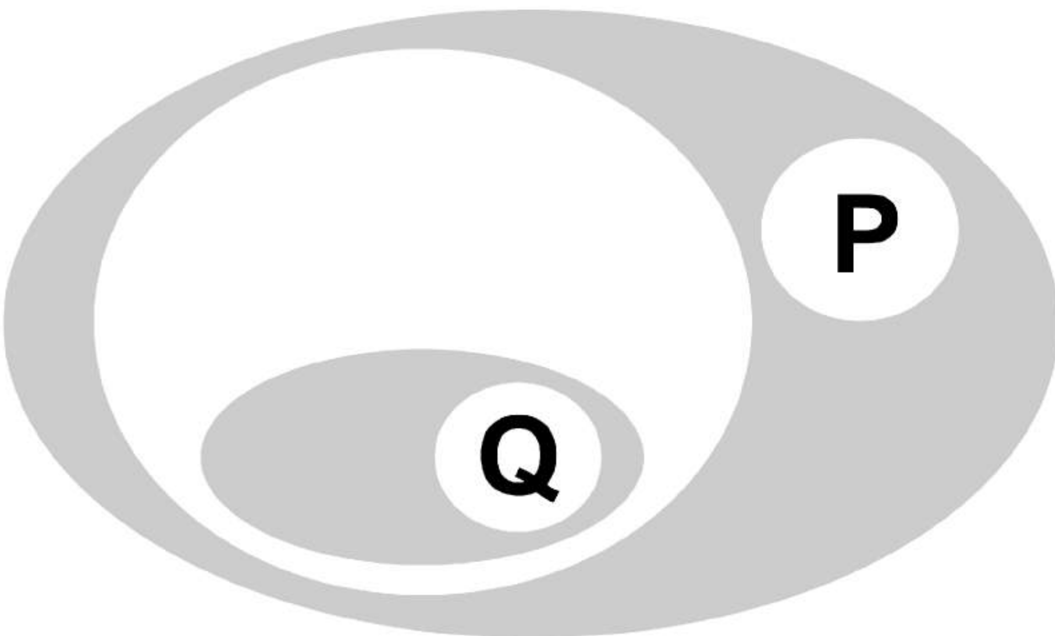
Second Hand-out on Existential Graphs, question 6



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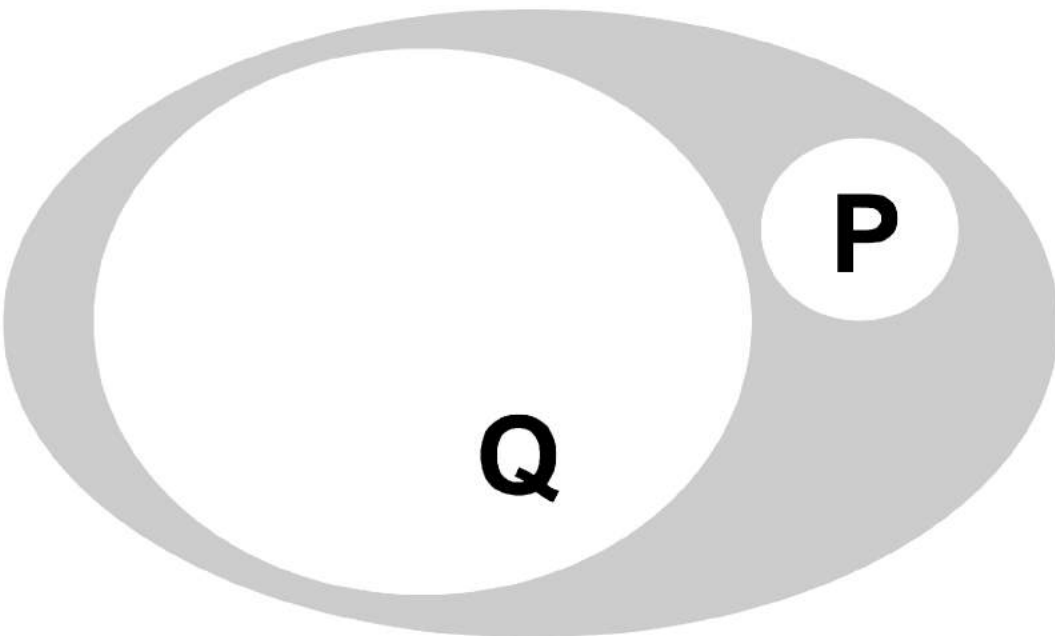
Prepared by Dr. Marc Champagne for PHIL 1150

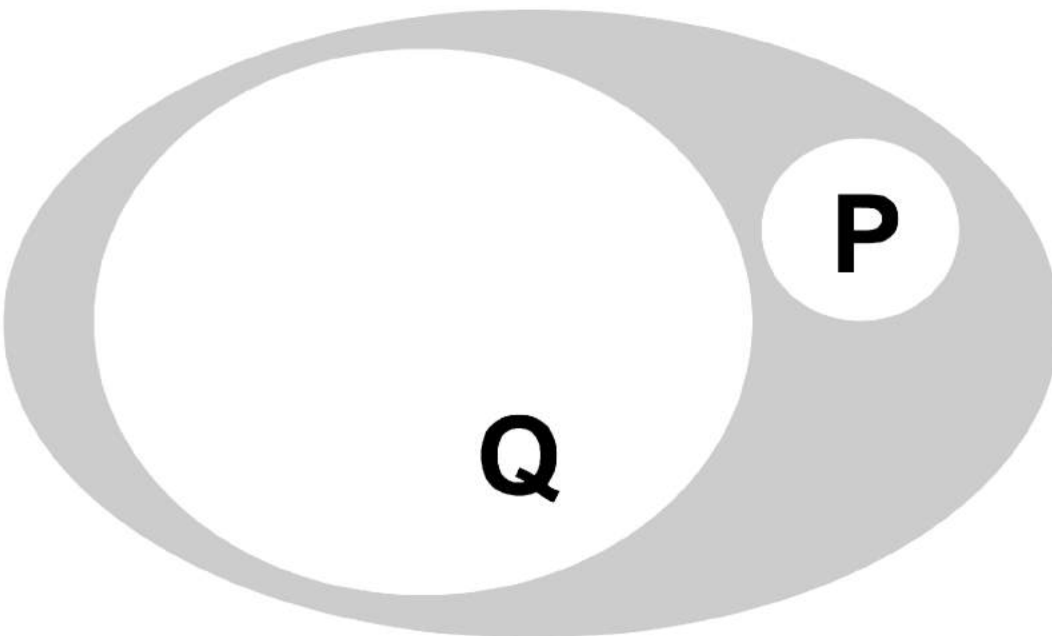
Second Hand-out on Existential Graphs, question 6



Double cut

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 6



Conclusion

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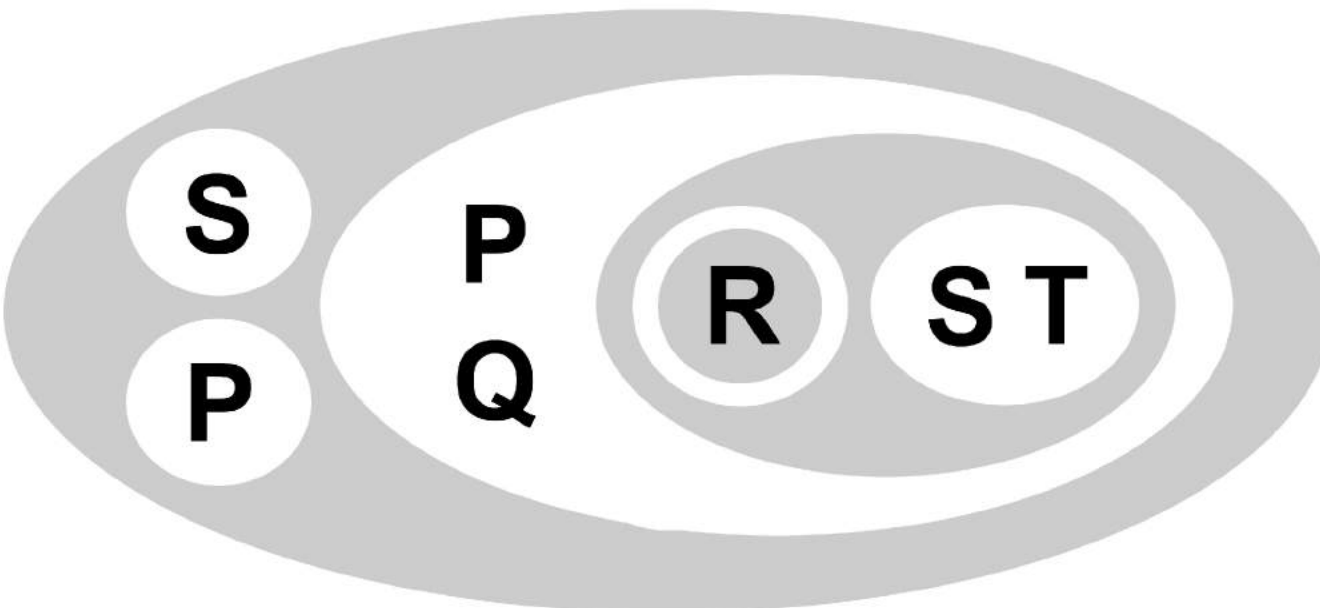
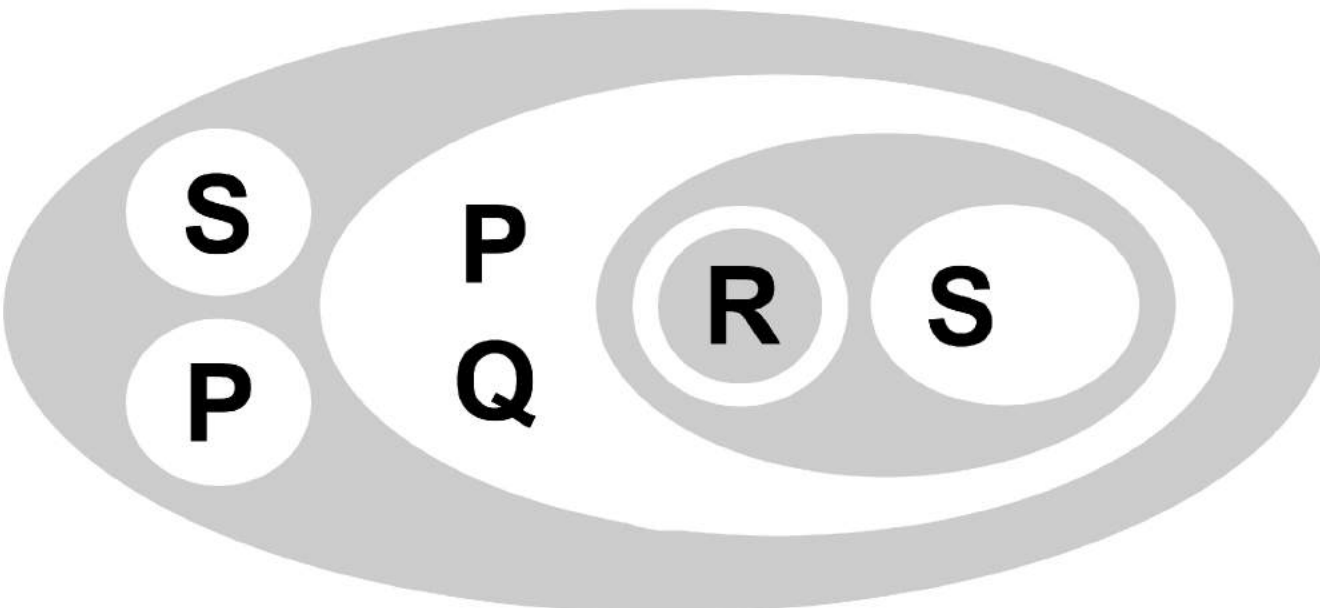
Second Hand-out on Existential Graphs, question 7



Premises

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 7



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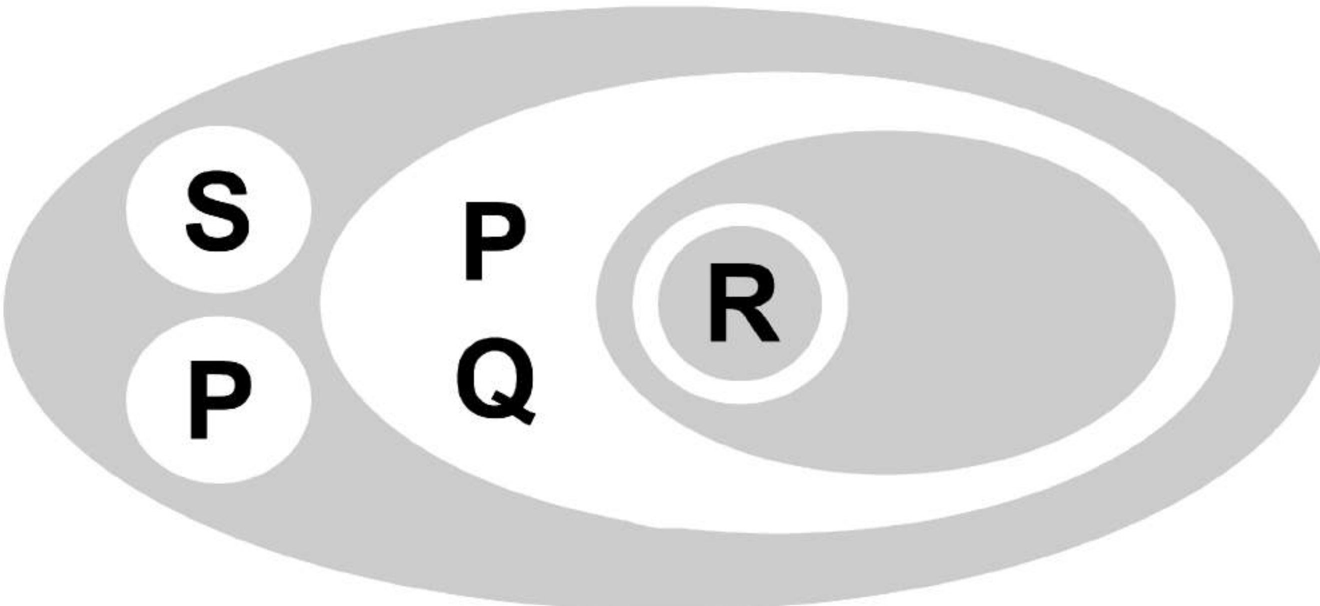
Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 7



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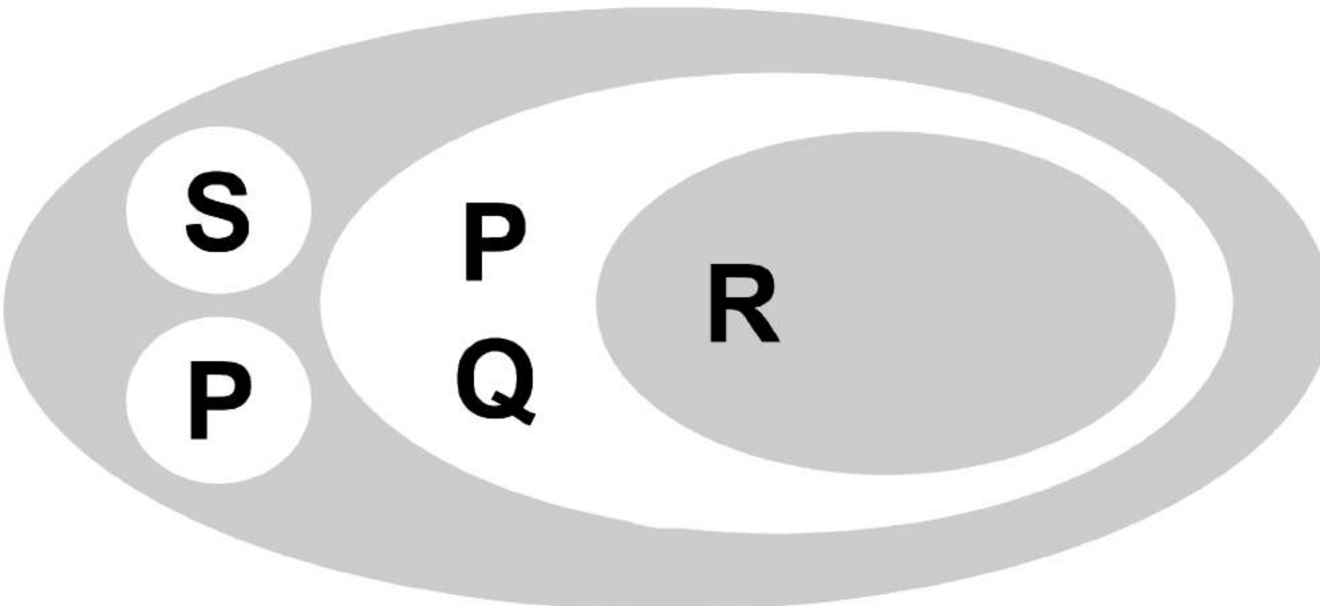
Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 7



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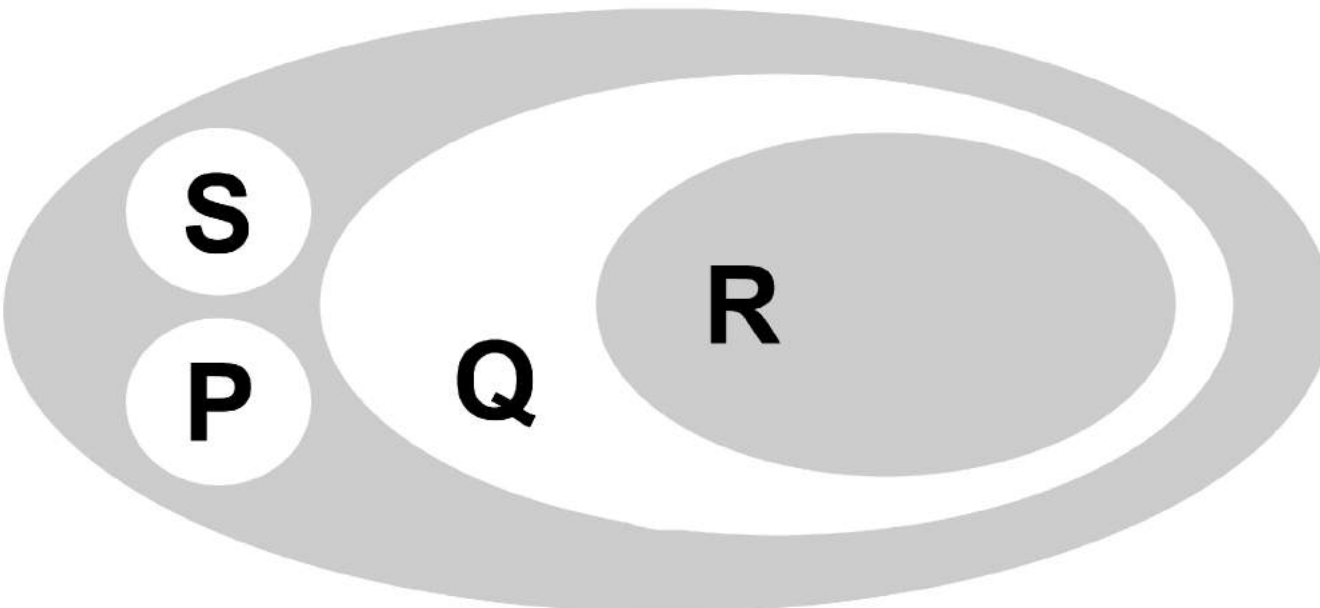
Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 7



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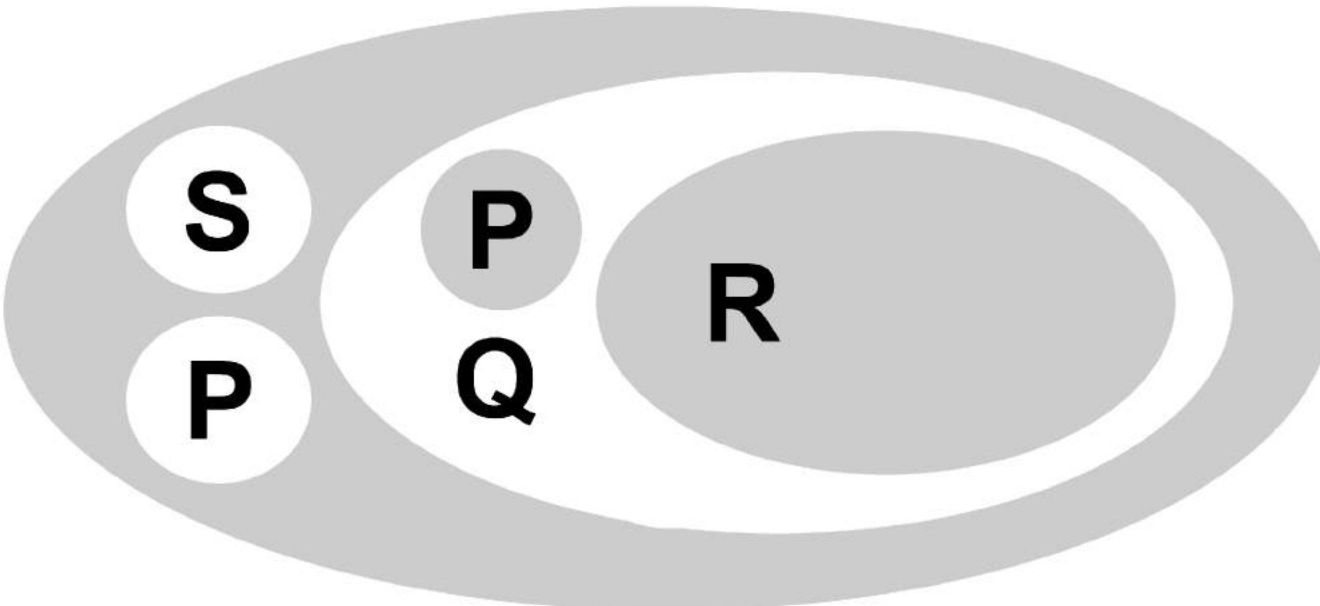
Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 7



Iterate

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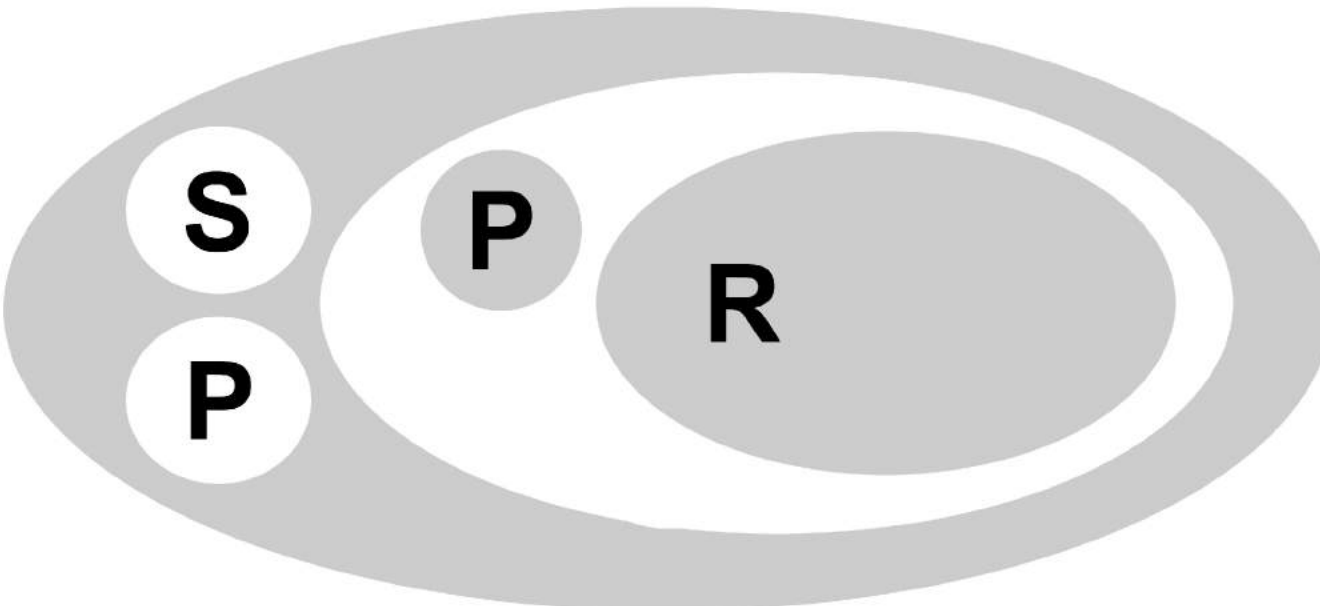
Second Hand-out on Existential Graphs, question 7



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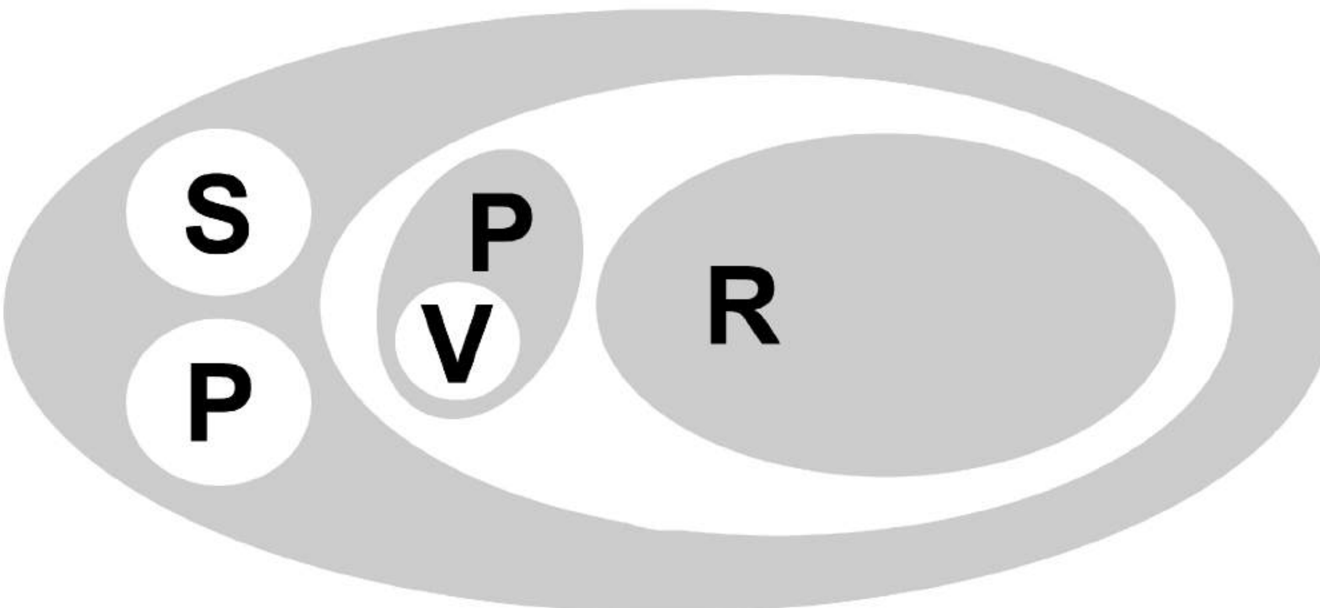
Prepared by Dr. Marc Champagne for PHIL 1150

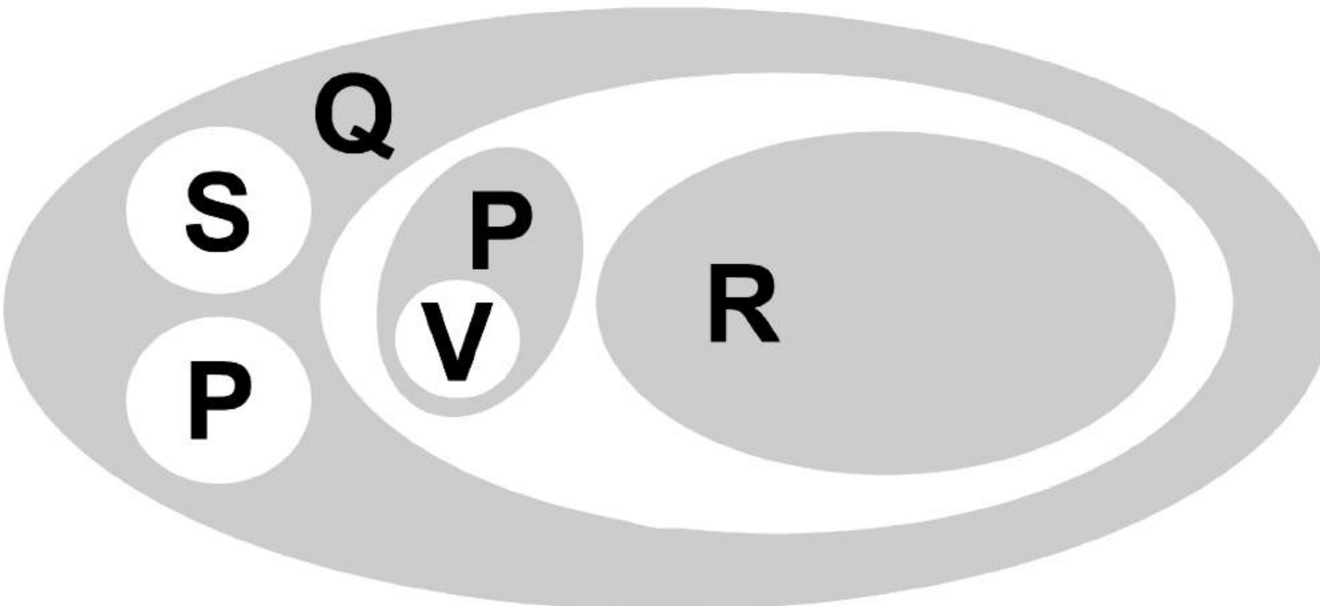
Second Hand-out on Existential Graphs, question 7



Insert

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 7



Conclusion

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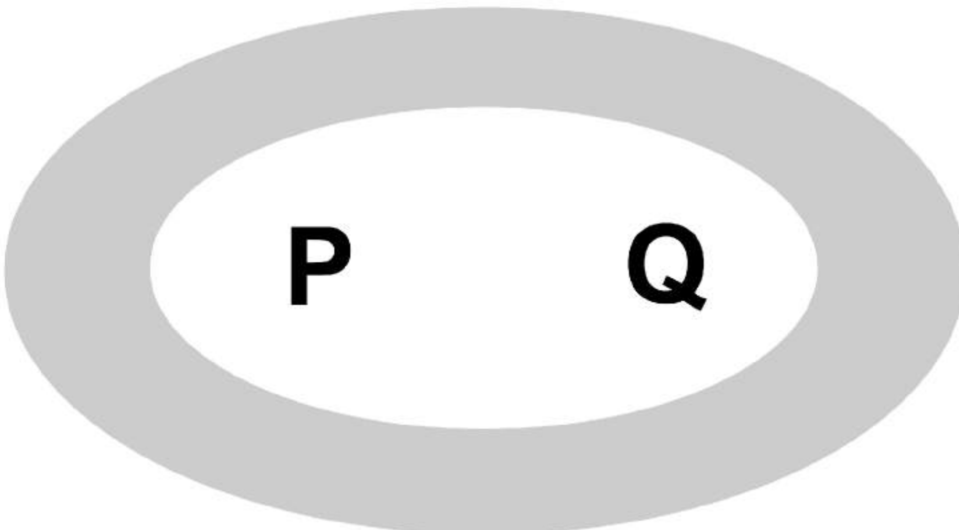
Second Hand-out on Existential Graphs, question 8

P Q

Premises

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 8



Double cut

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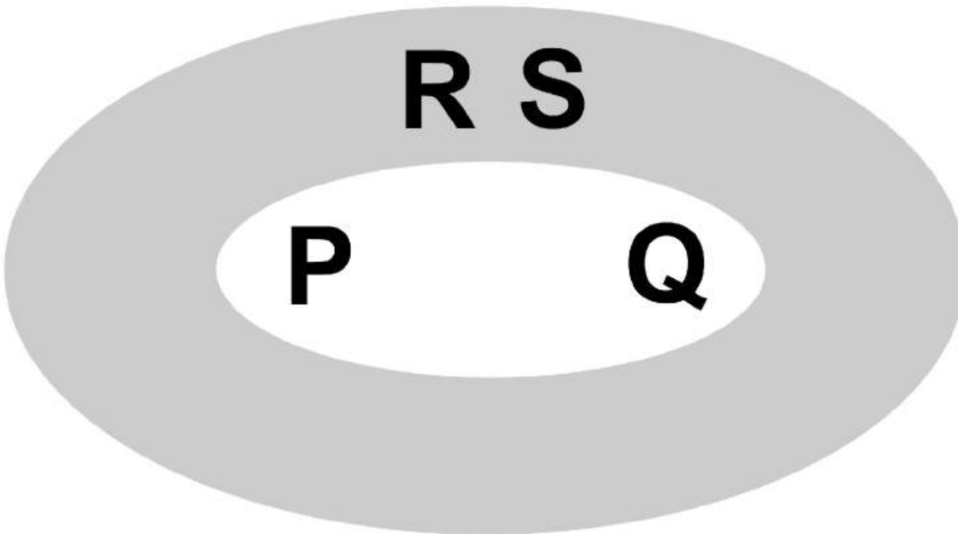
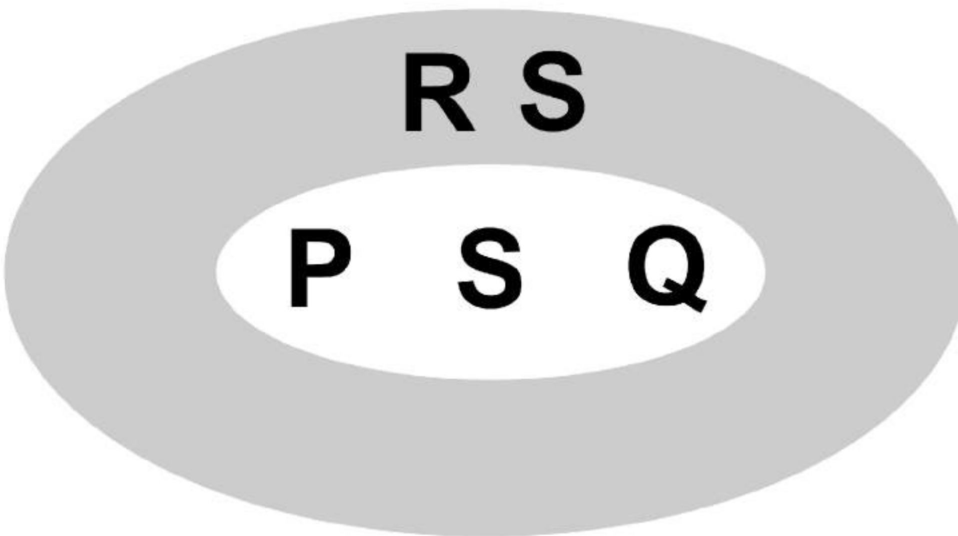
Second Hand-out on Existential Graphs, question 8



Insert

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 8



Iterate

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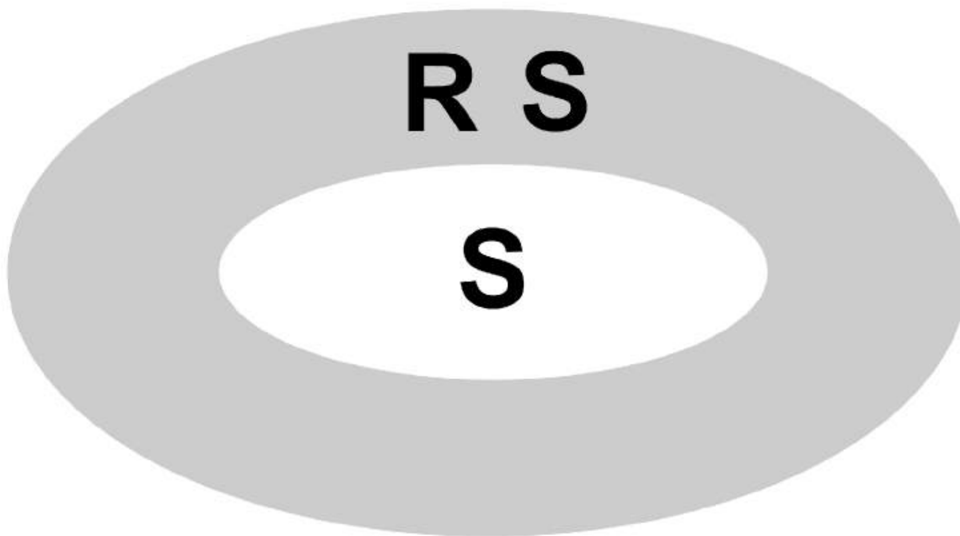
Second Hand-out on Existential Graphs, question 8



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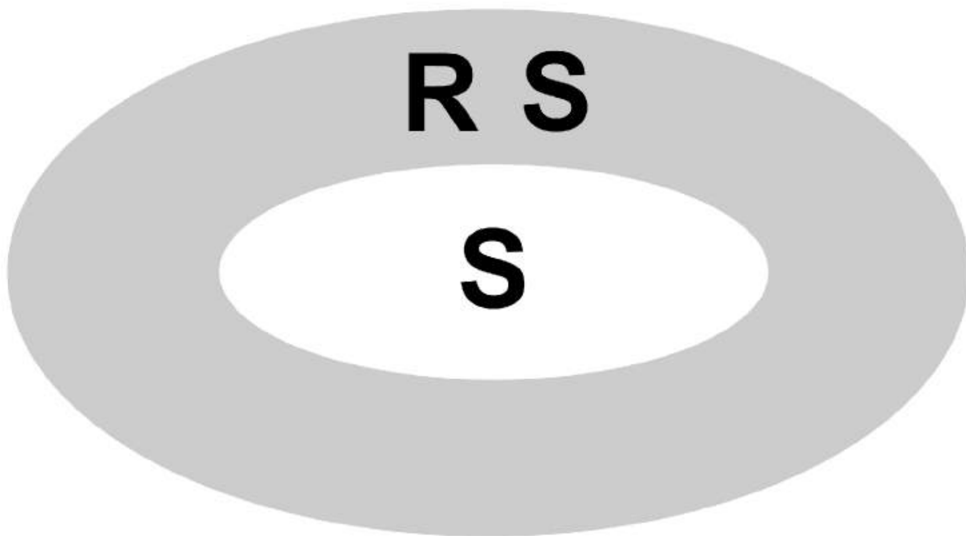
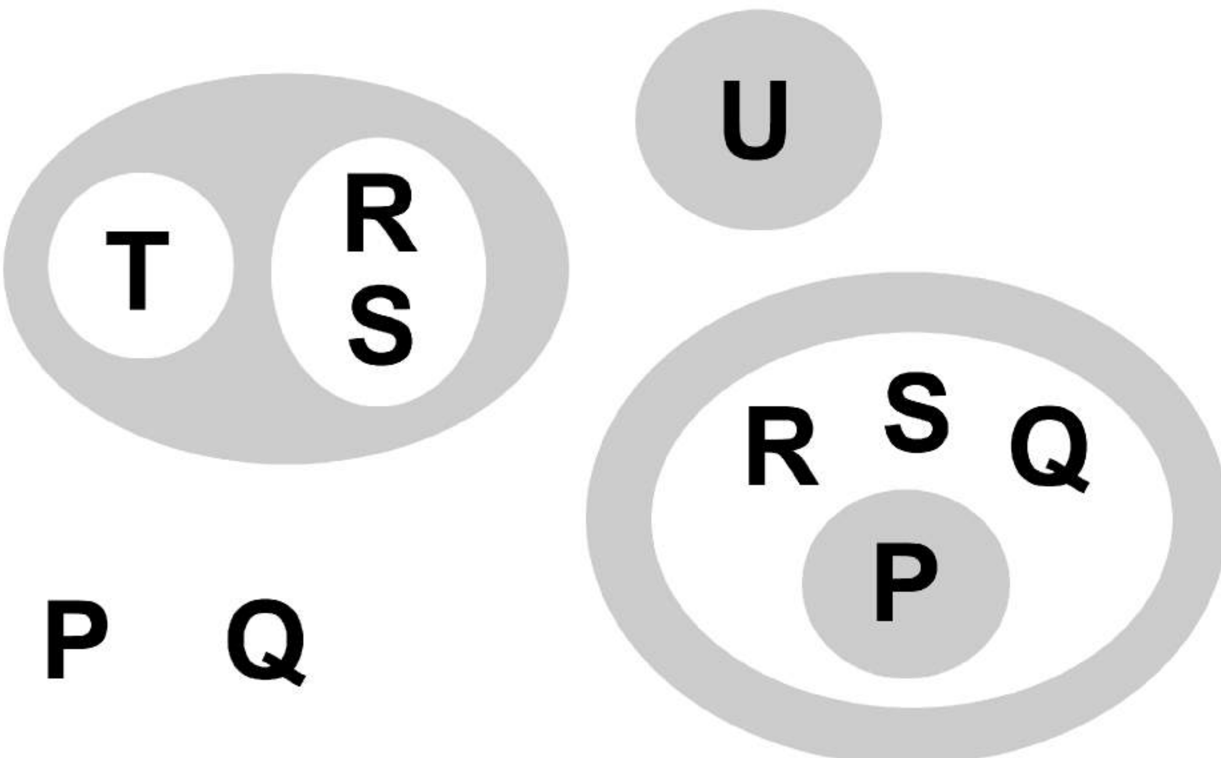
Second Hand-out on Existential Graphs, question 8



Conclusion

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 9



Premises

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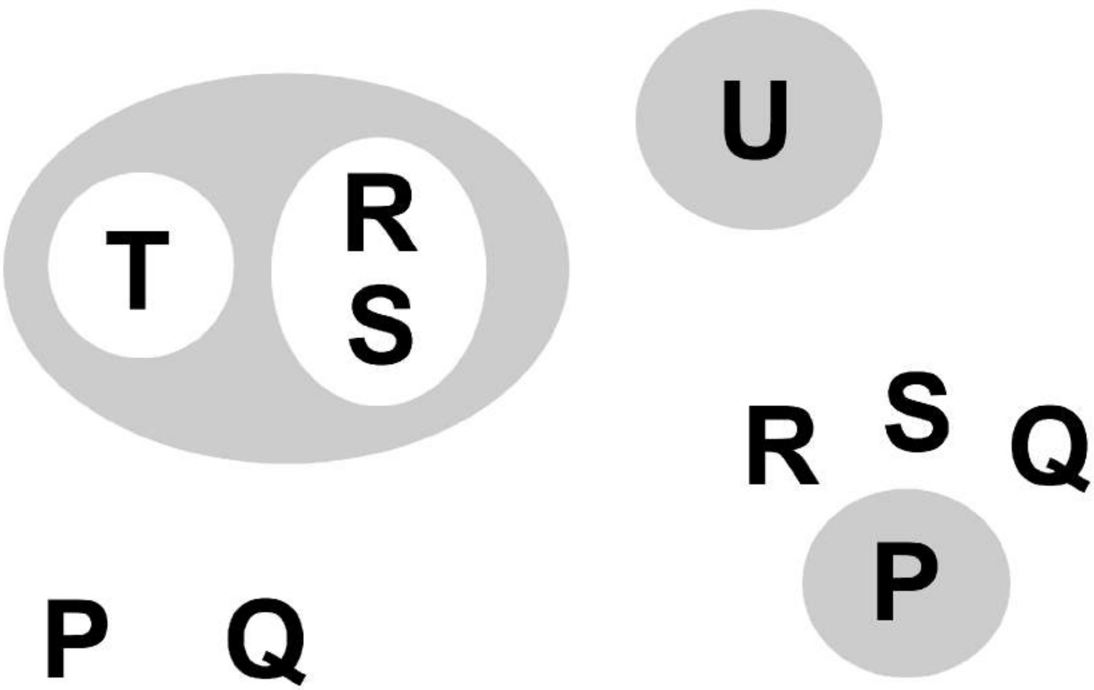
Second Hand-out on Existential Graphs, question 9



Double cut

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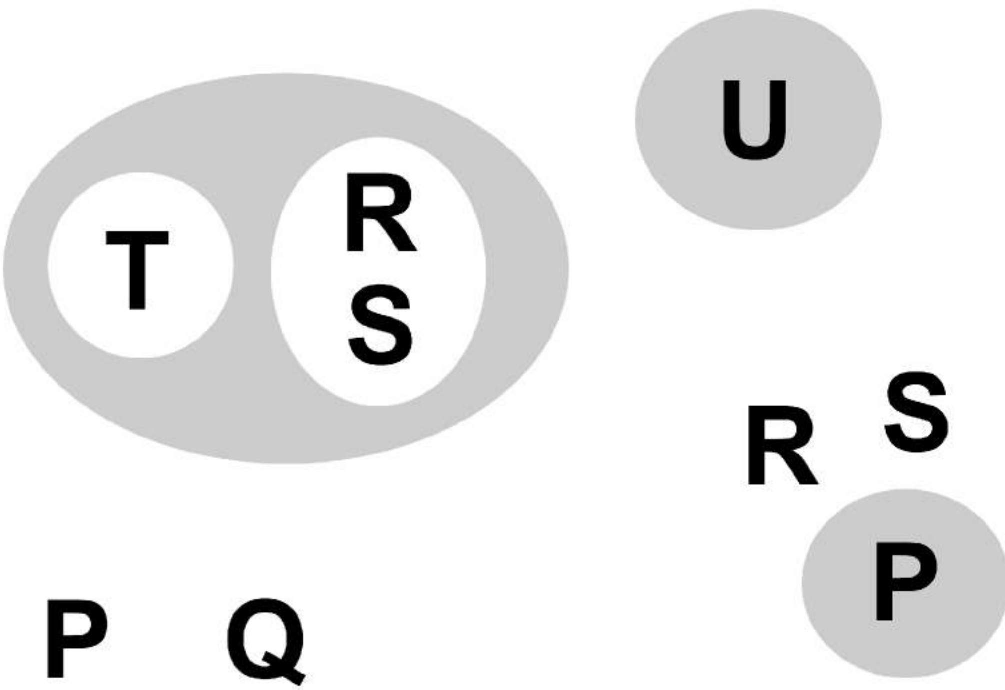
Second Hand-out on Existential Graphs, question 9



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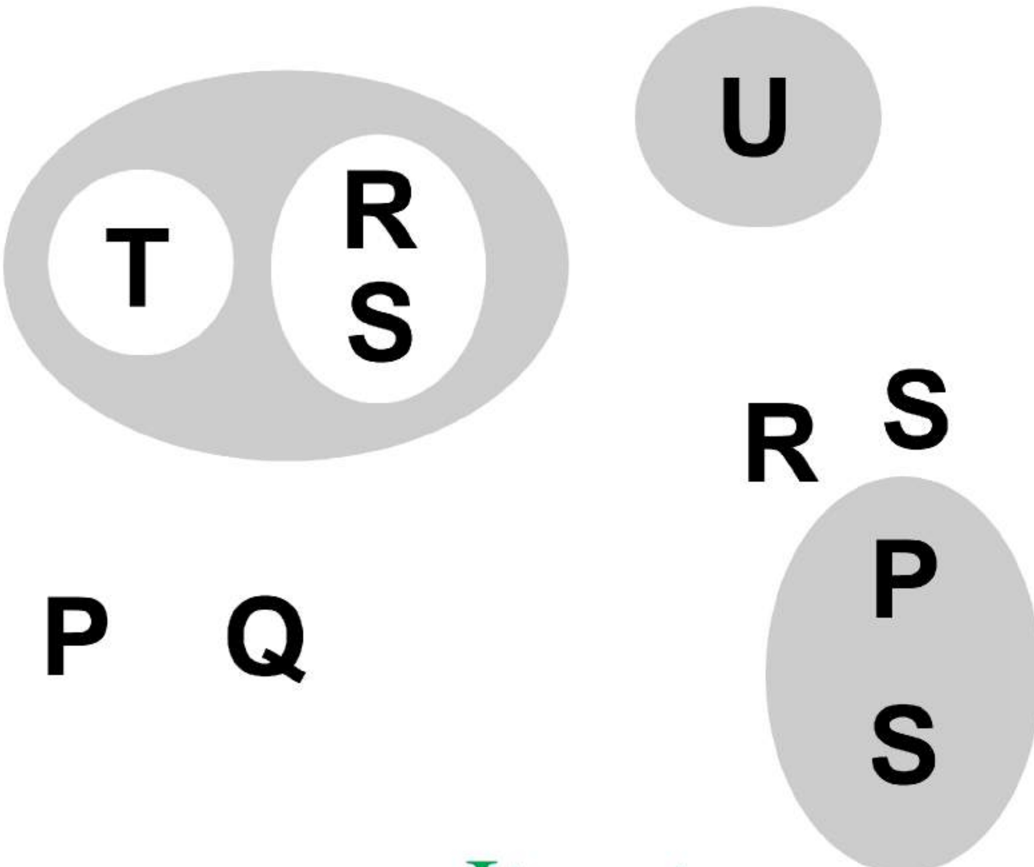
Second Hand-out on Existential Graphs, question 9



Iterate

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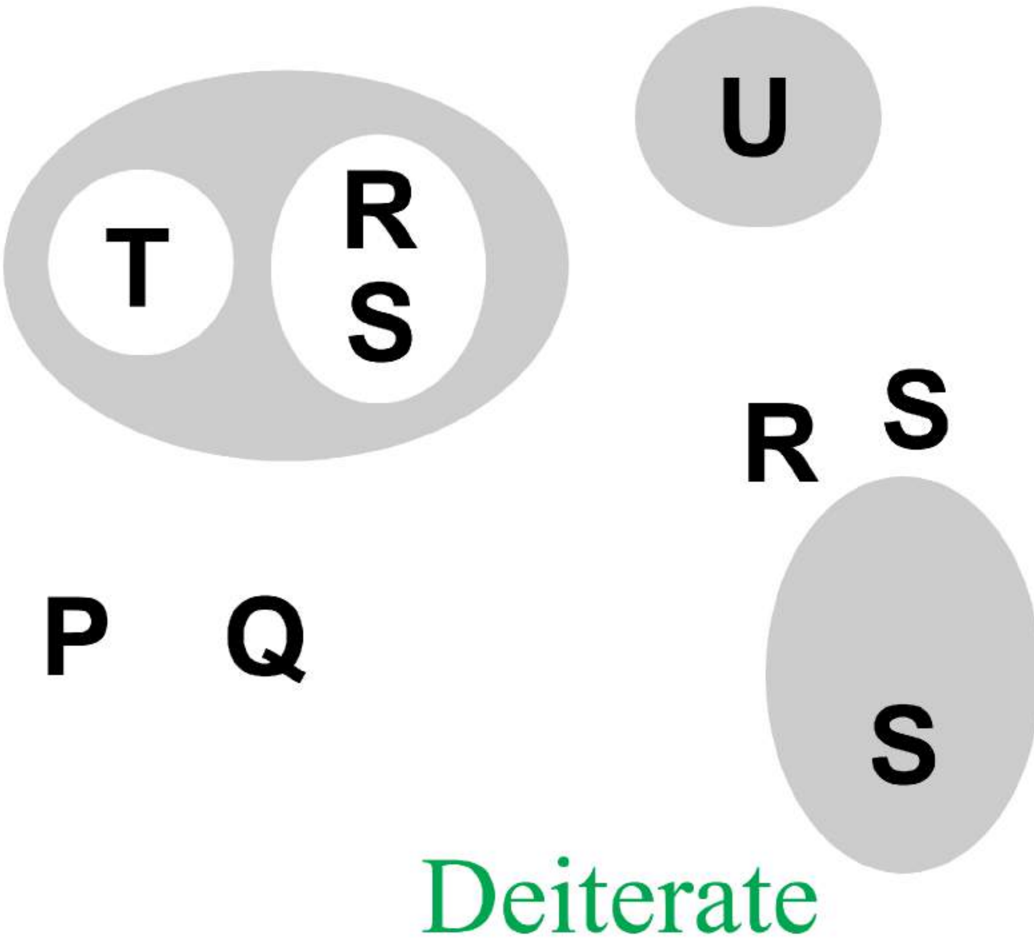
Second Hand-out on Existential Graphs, question 9



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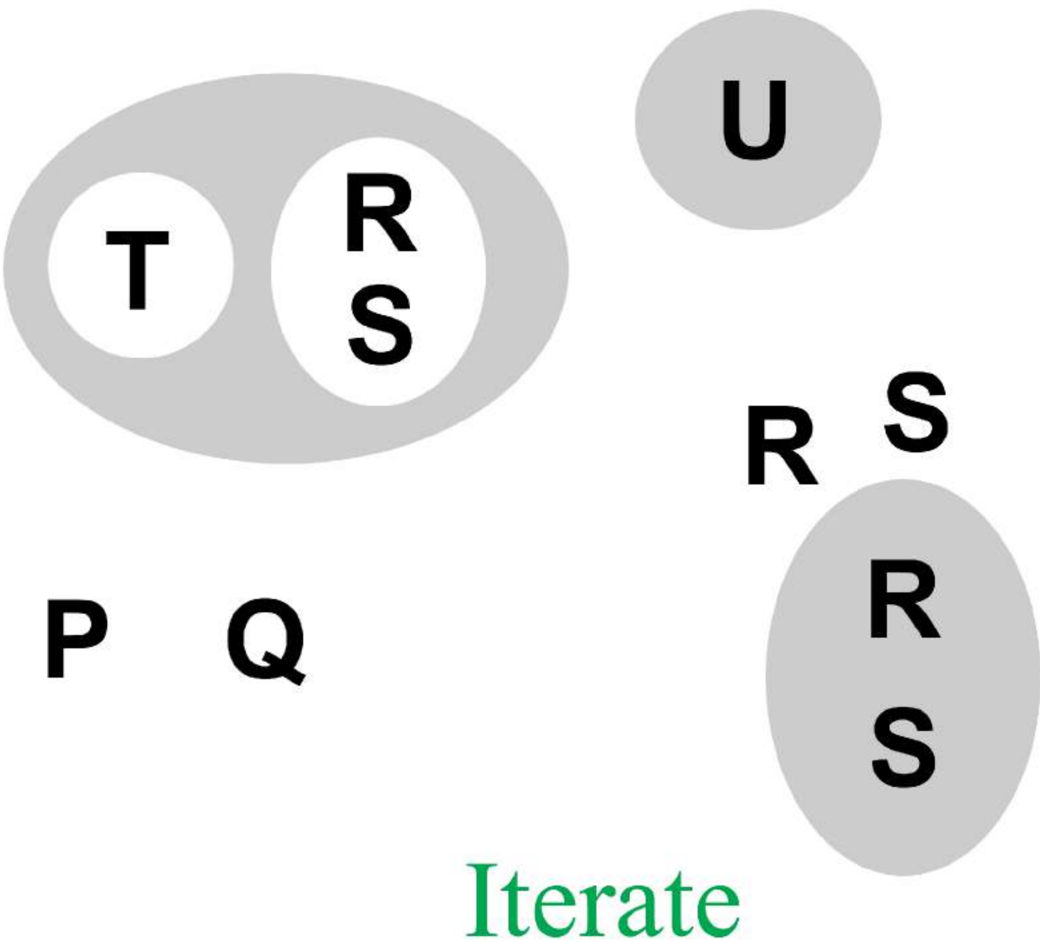
Second Hand-out on Existential Graphs, question 9



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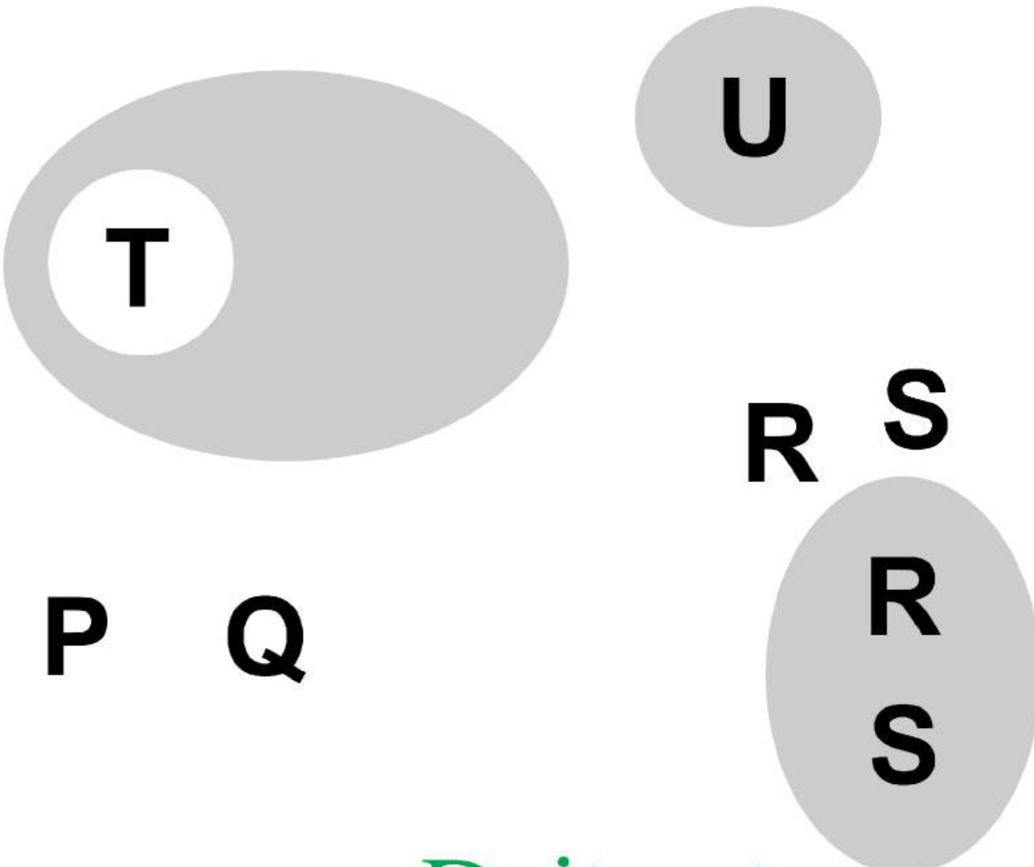
Second Hand-out on Existential Graphs, question 9



Deiterate

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Second Hand-out on Existential Graphs, question 9

Erase

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 9

Double cut

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 9

Insert

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Second Hand-out on Existential Graphs, question 9

Conclusion

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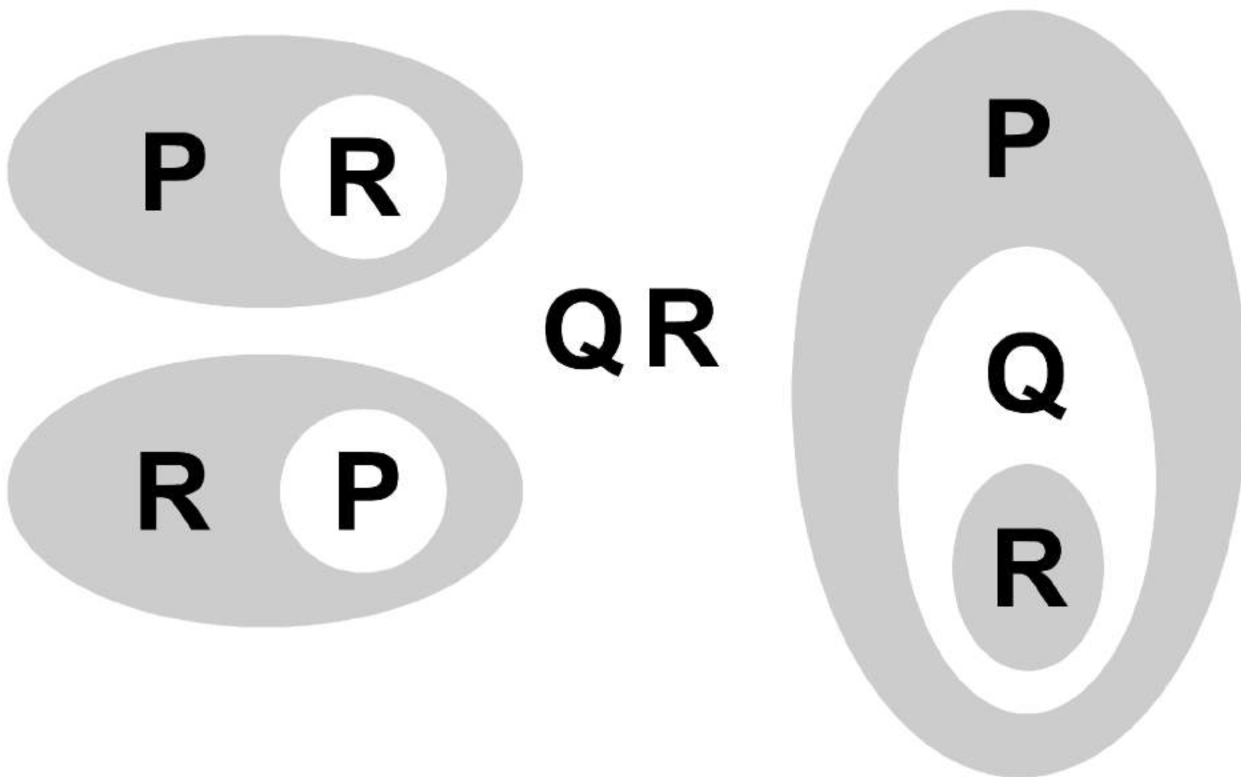
Second Hand-out on Existential Graphs, question 10



Premises

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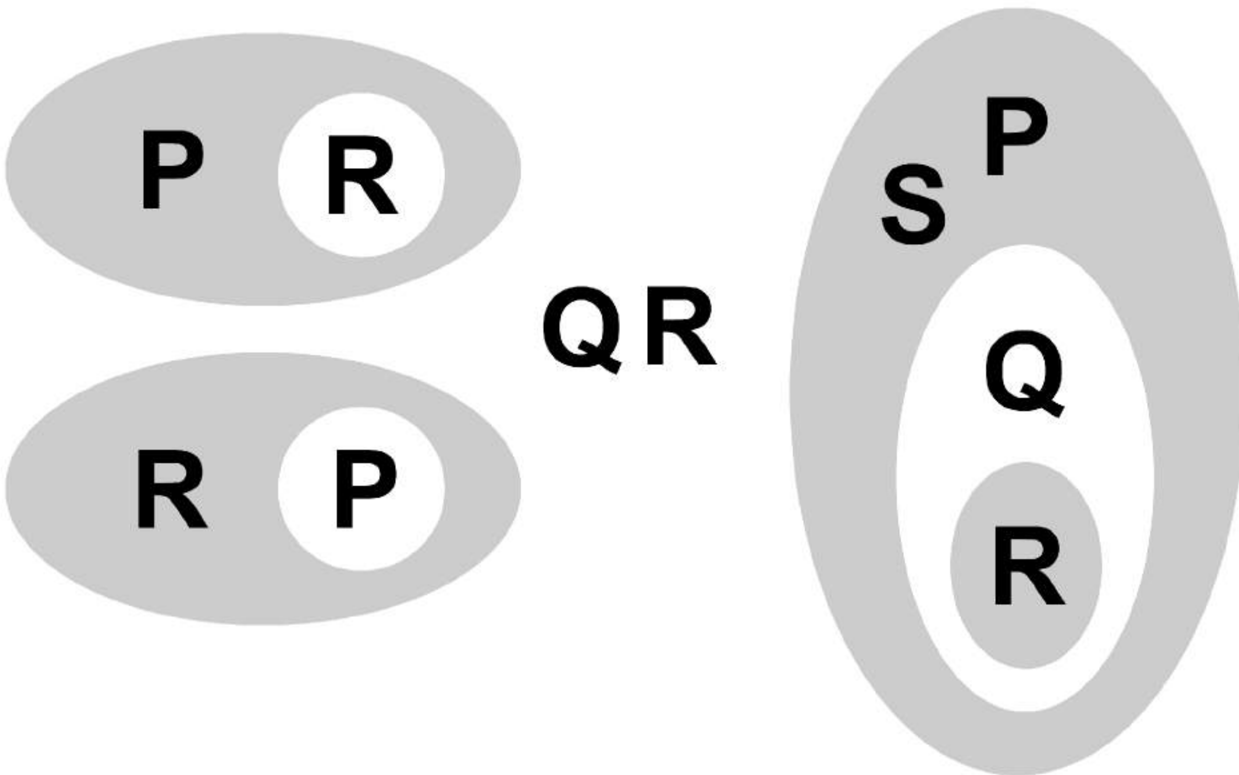
Second Hand-out on Existential Graphs, question 10



Insert

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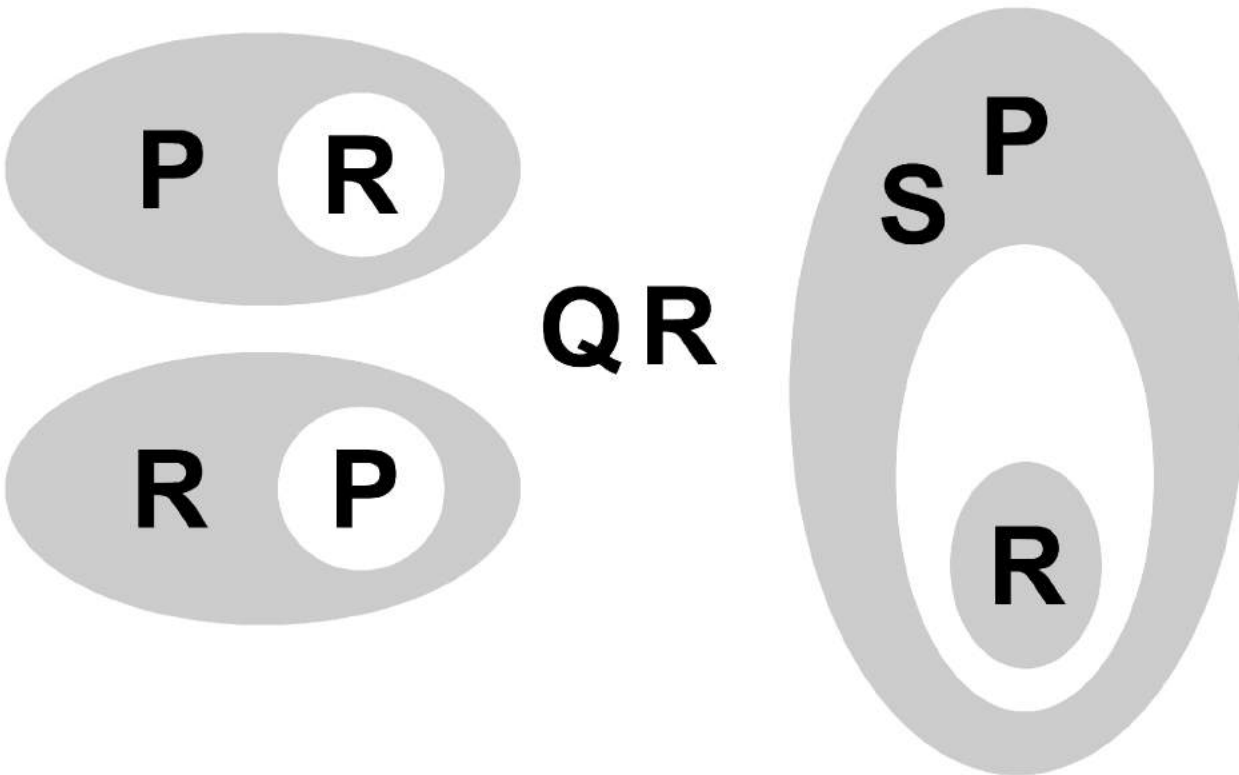
Second Hand-out on Existential Graphs, question 10



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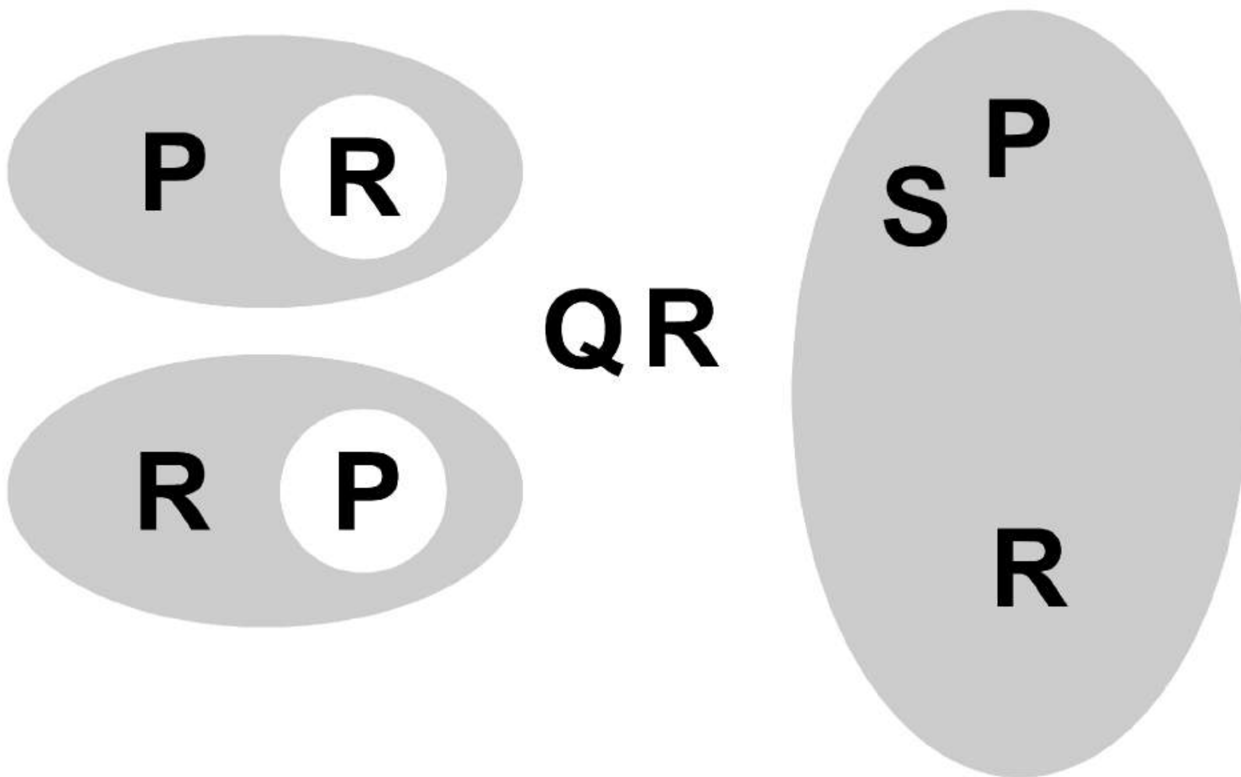
Second Hand-out on Existential Graphs, question 10



Double cut

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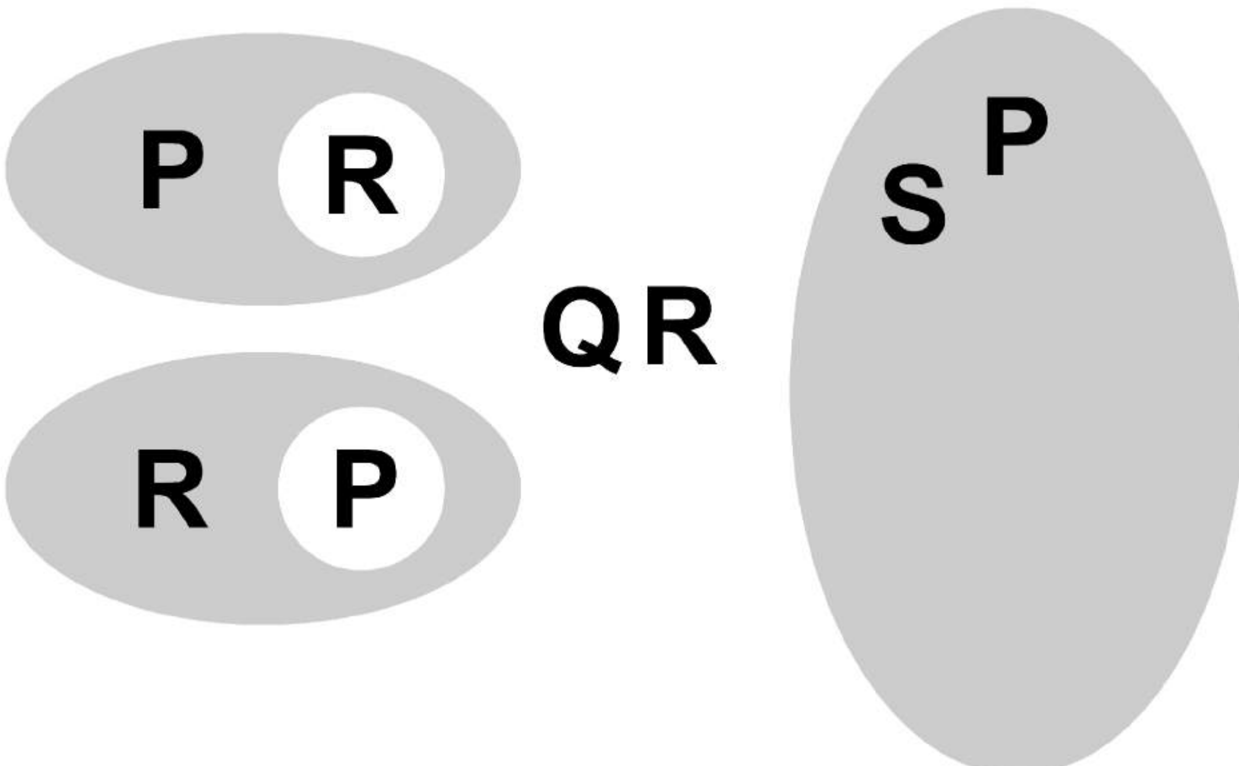
Second Hand-out on Existential Graphs, question 10



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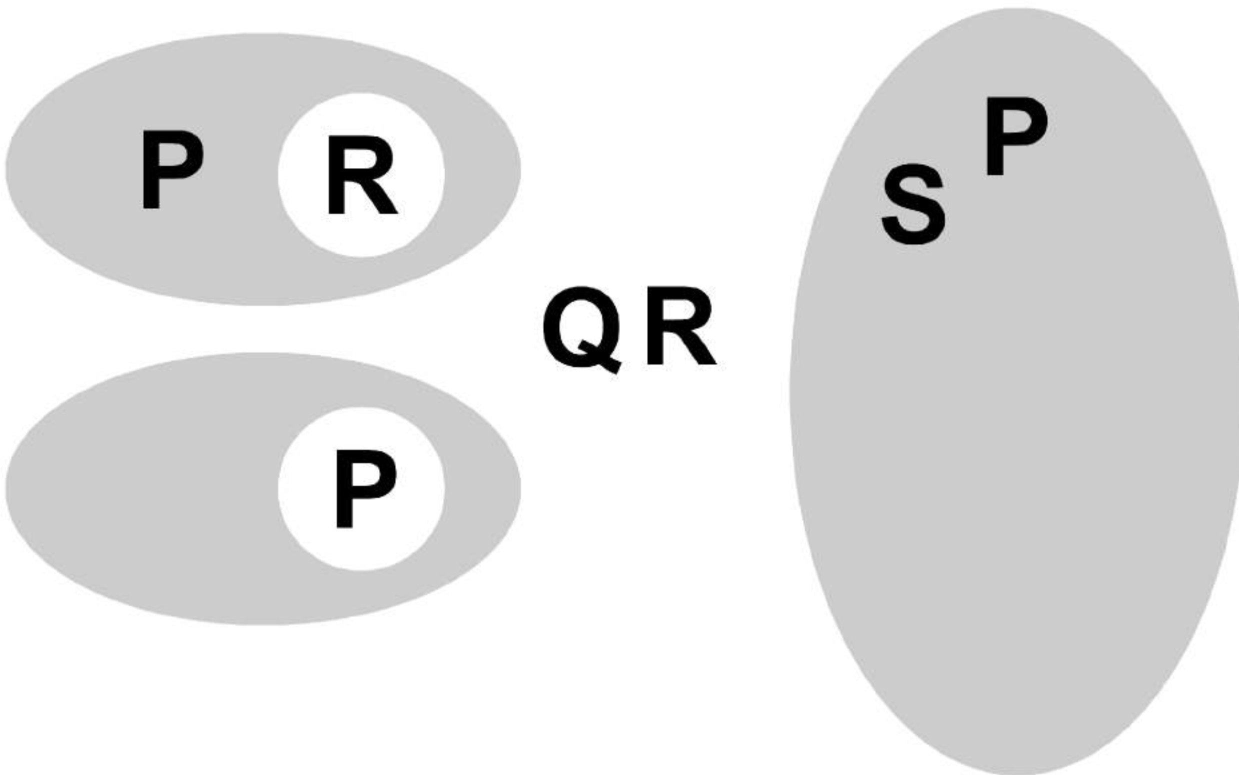
Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 10



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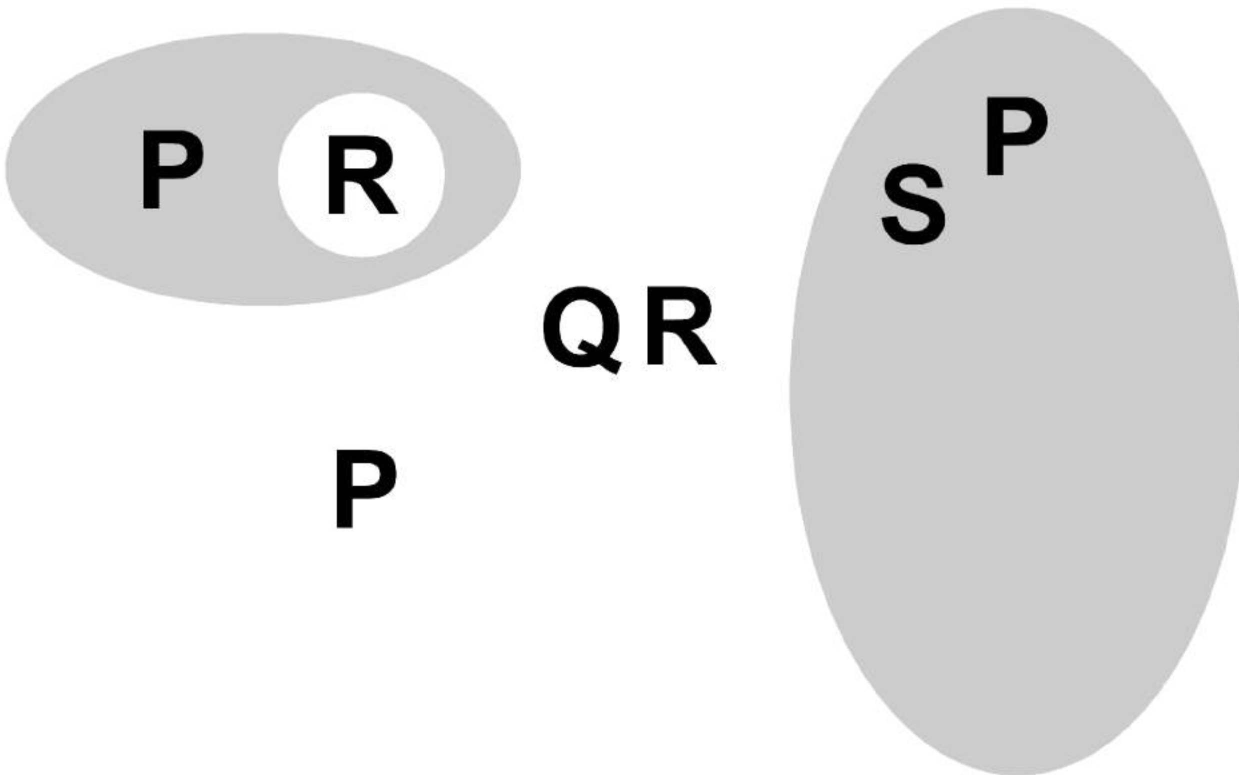
Second Hand-out on Existential Graphs, question 10



Double cut

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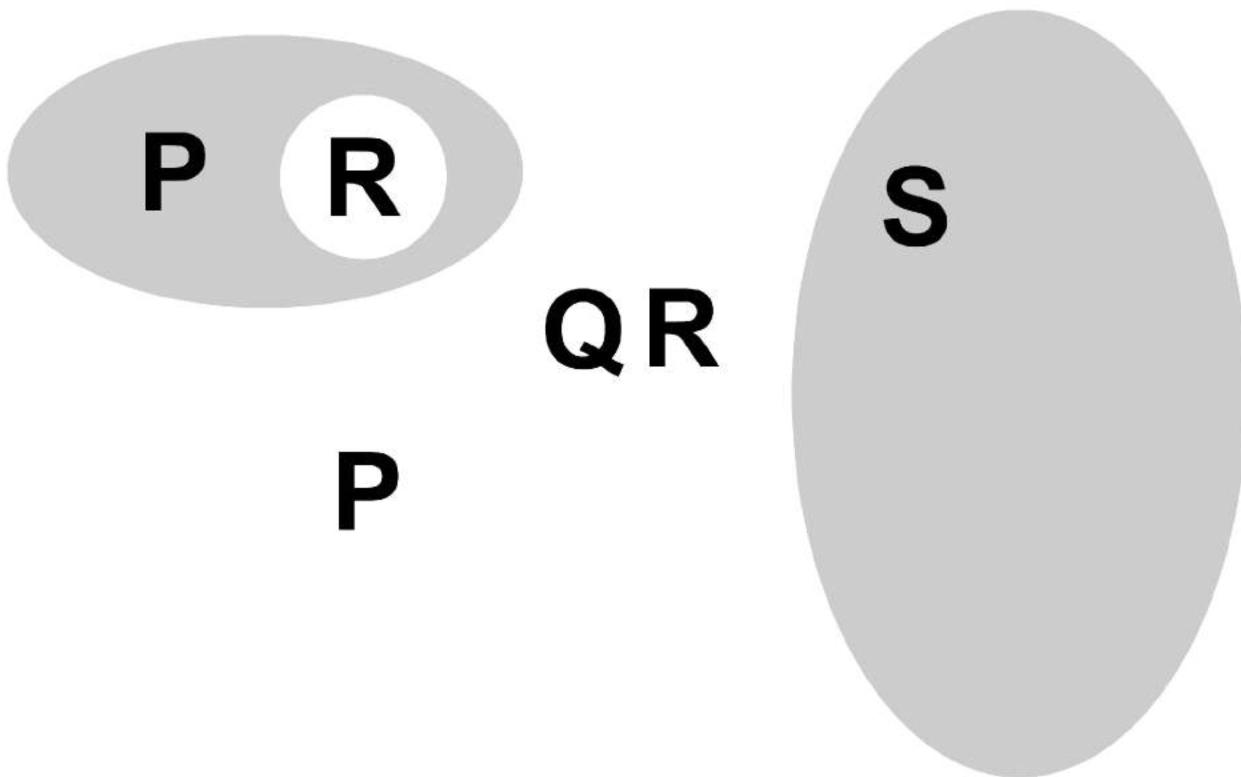
Second Hand-out on Existential Graphs, question 10



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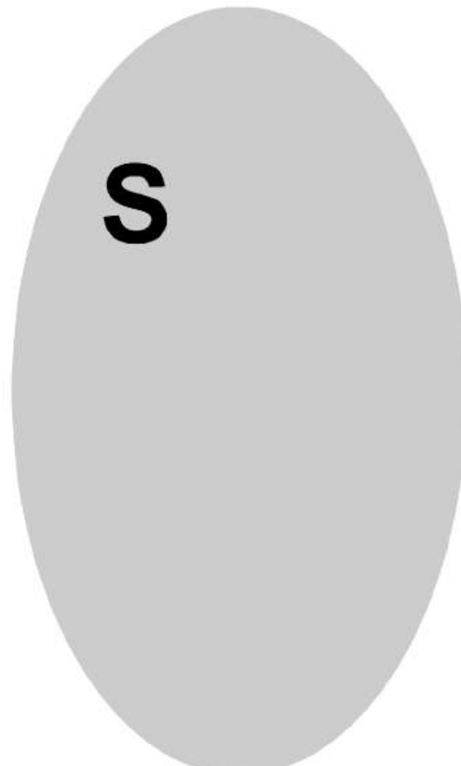
Second Hand-out on Existential Graphs, question 10



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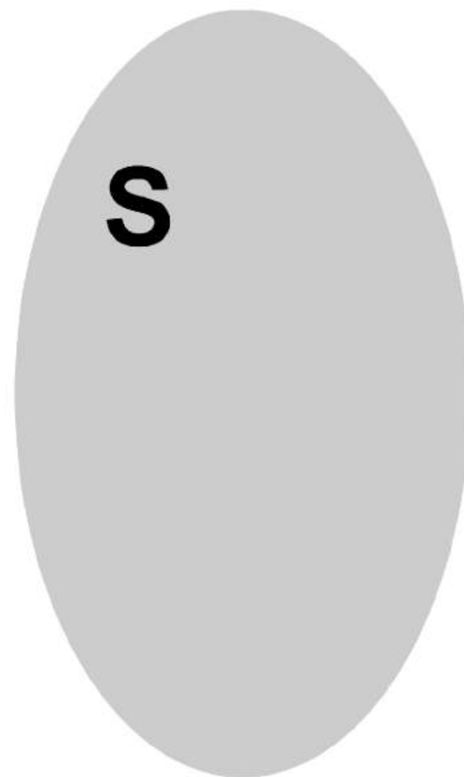
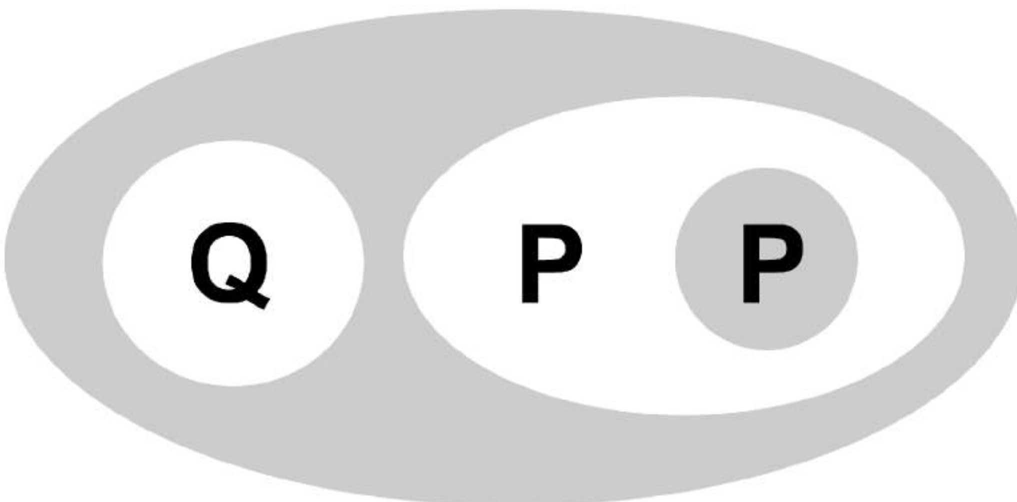
Second Hand-out on Existential Graphs, question 10



Conclusion

Second Hand-out on Existential Graphs, question 11



Premises

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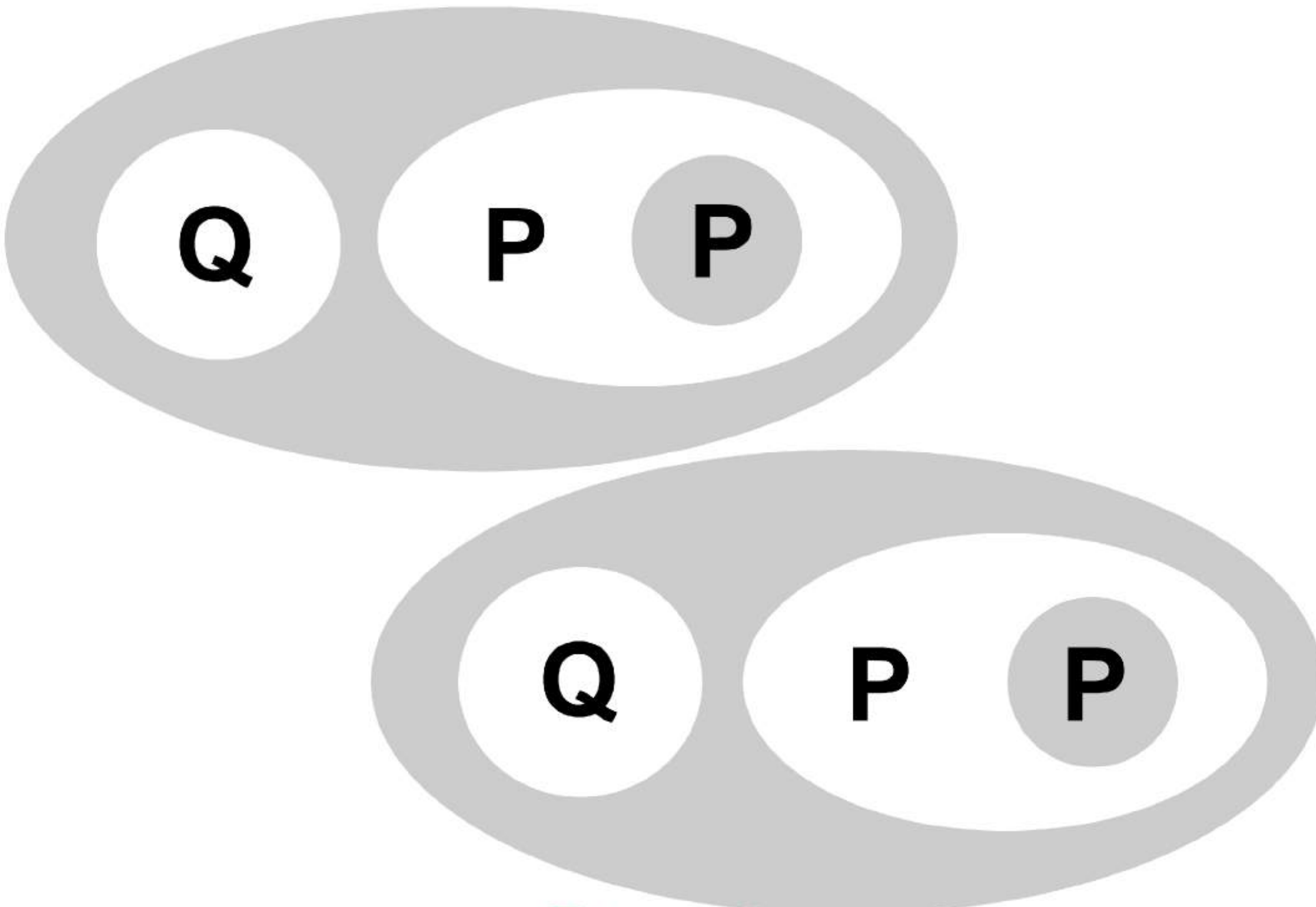
Second Hand-out on Existential Graphs, question 11



Iterate

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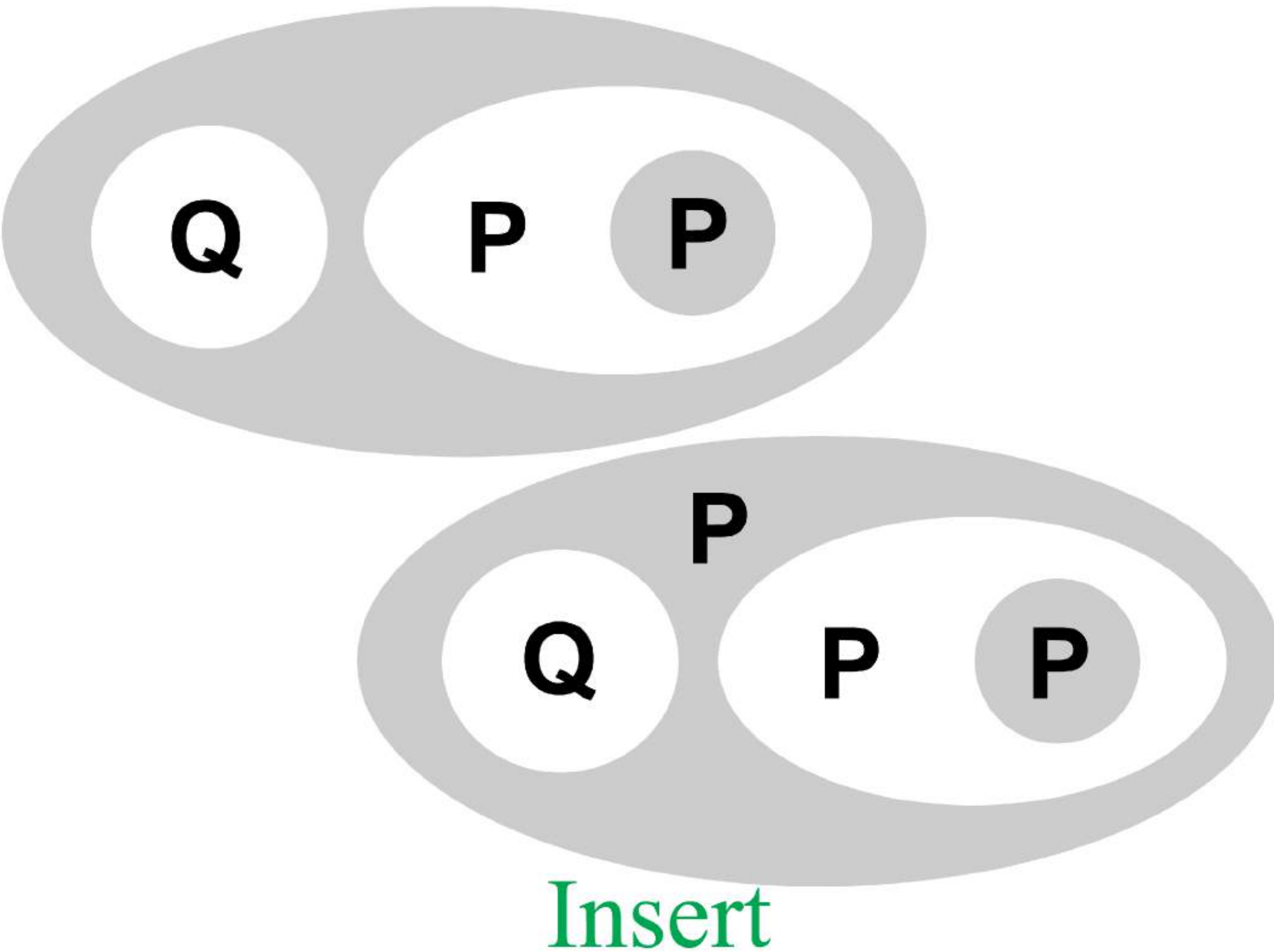
Second Hand-out on Existential Graphs, question 11



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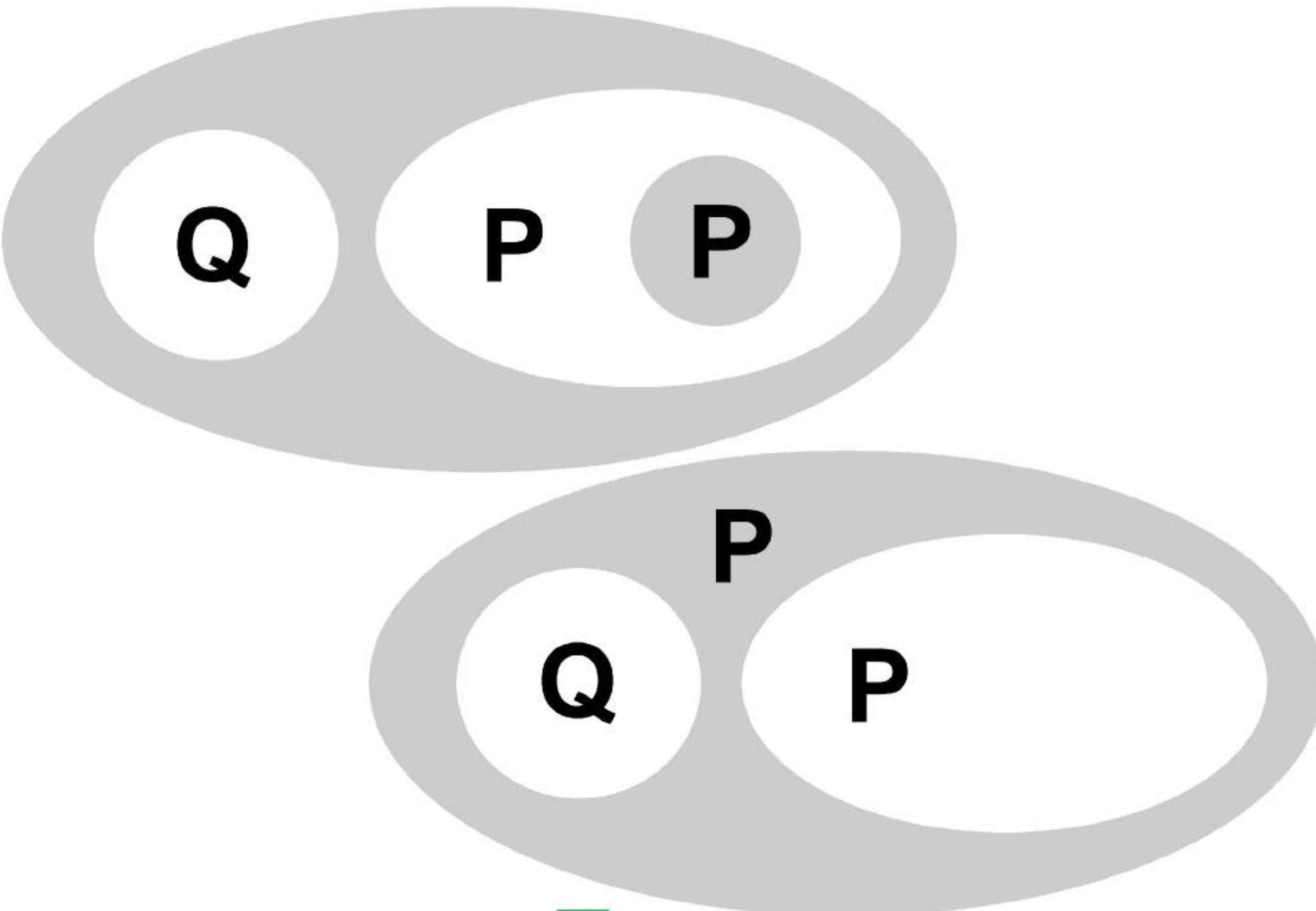
Second Hand-out on Existential Graphs, question 11



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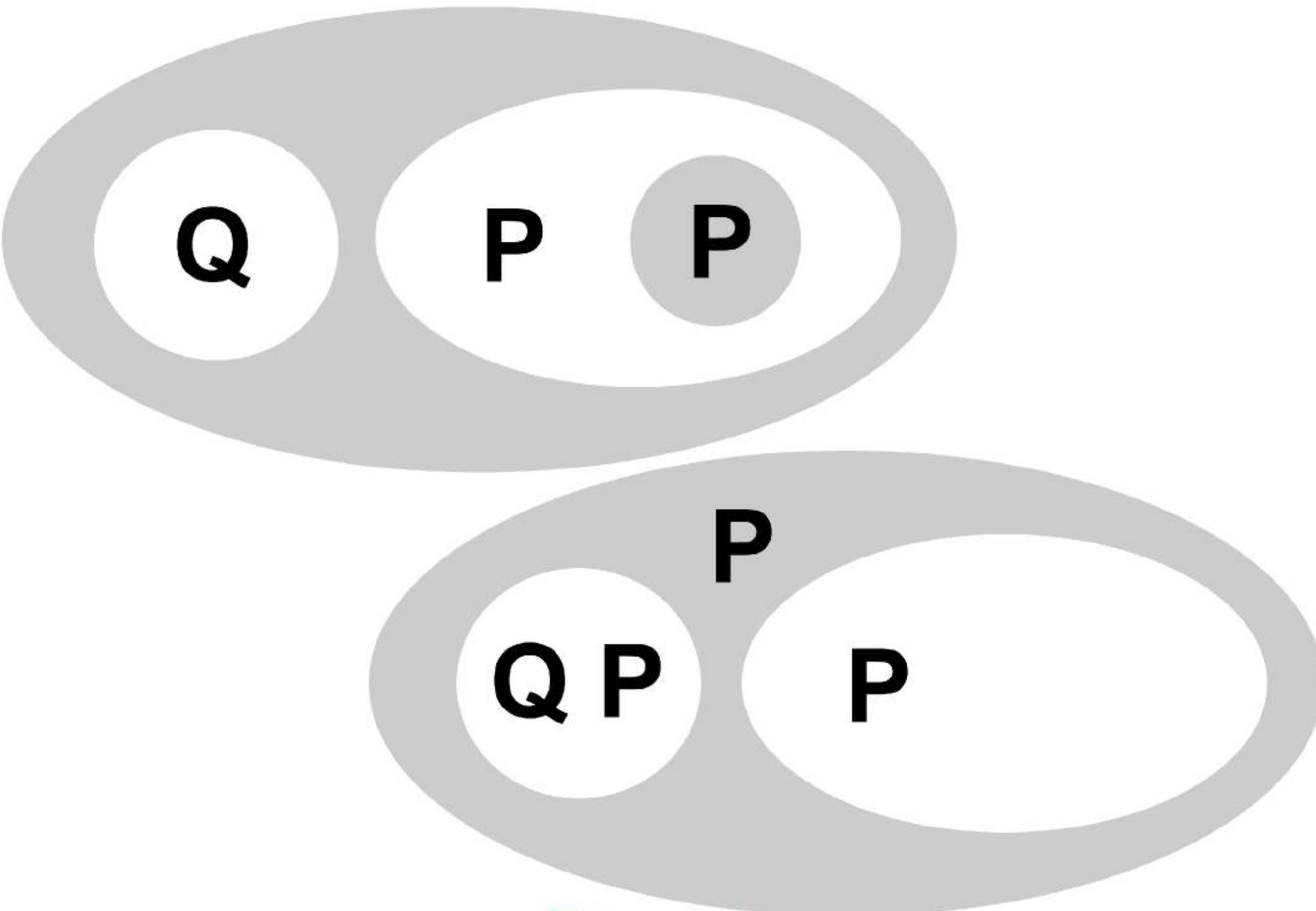
Second Hand-out on Existential Graphs, question 11



Iterate

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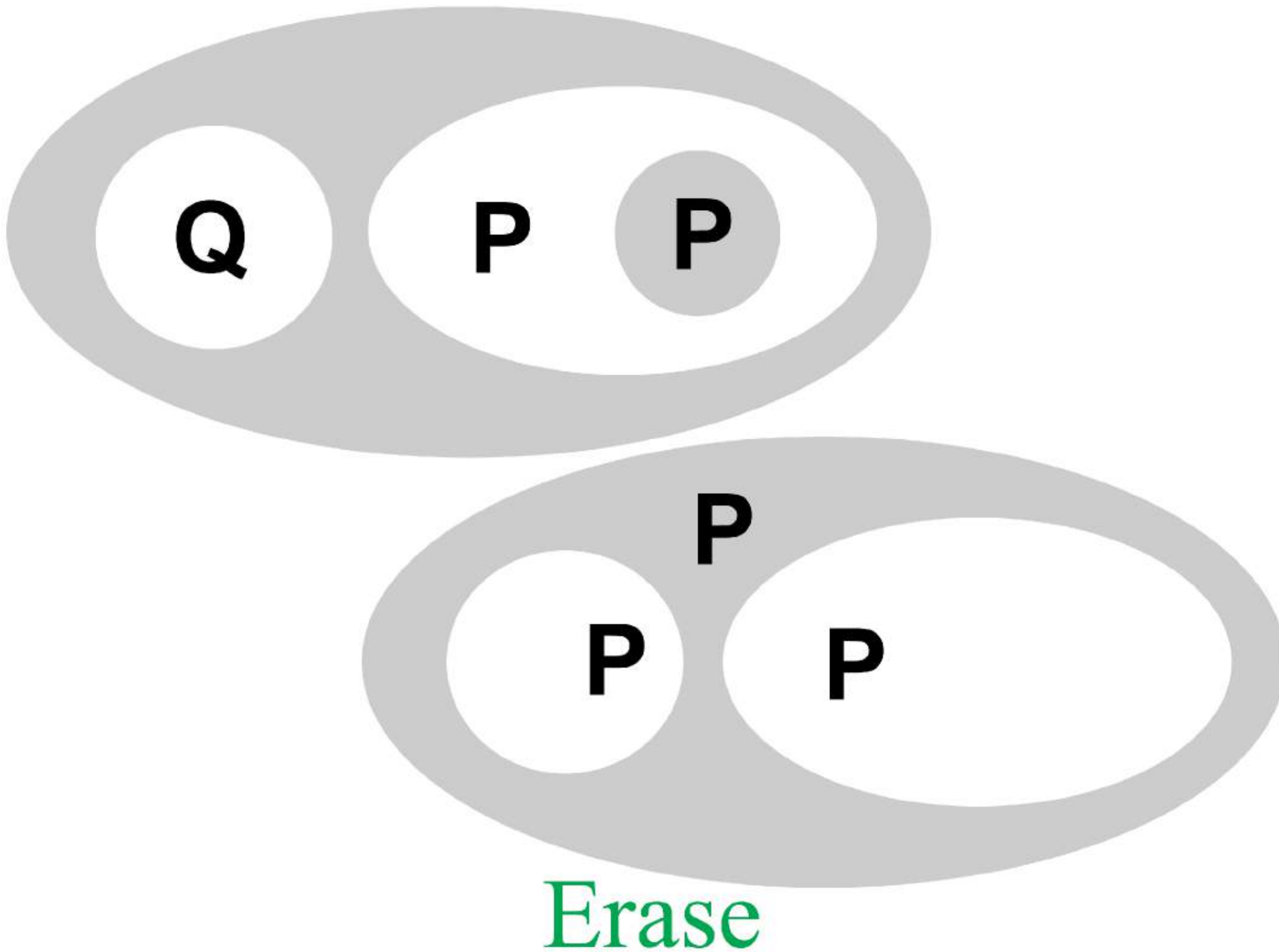
Second Hand-out on Existential Graphs, question 11



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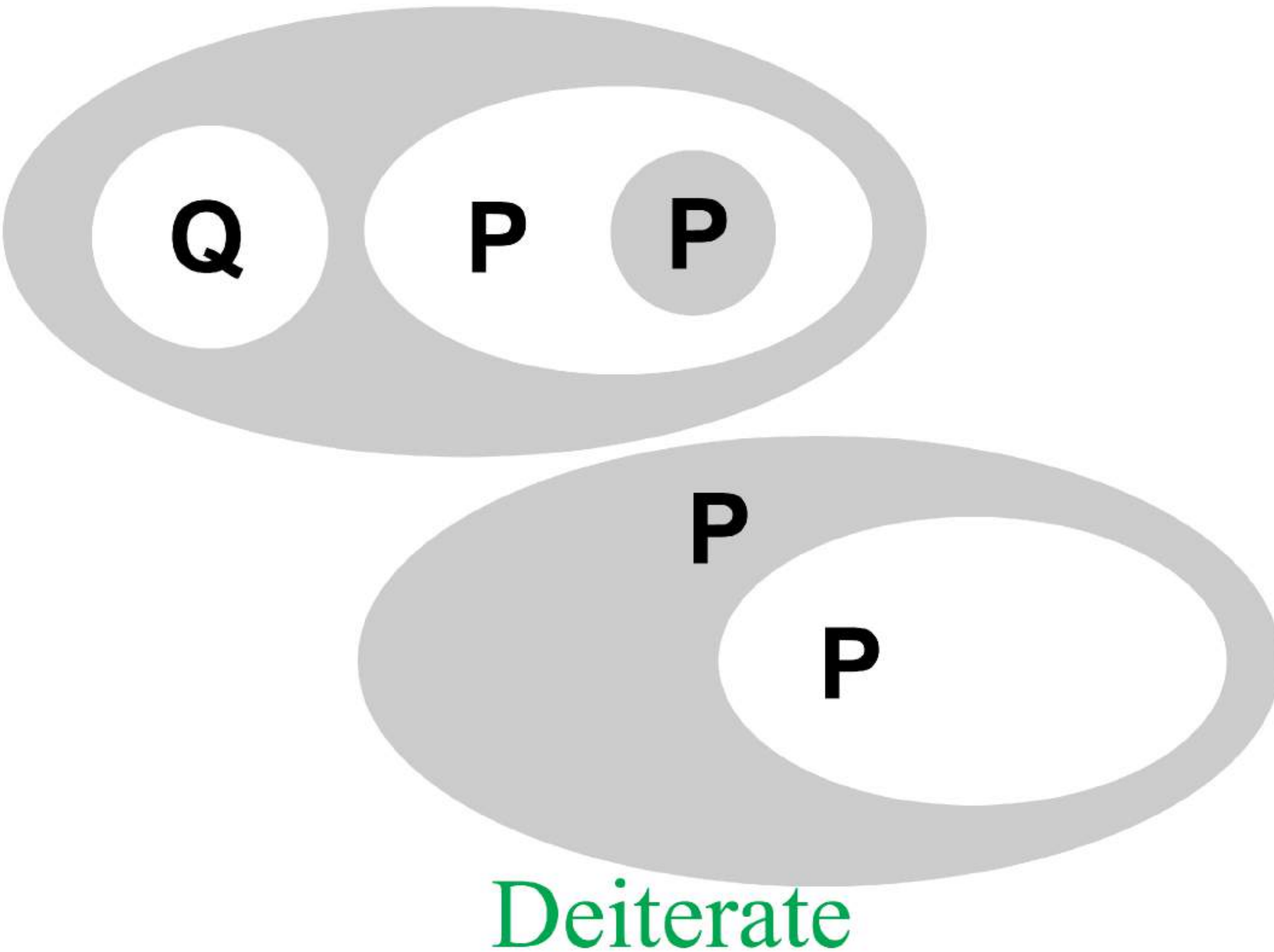
Second Hand-out on Existential Graphs, question 11



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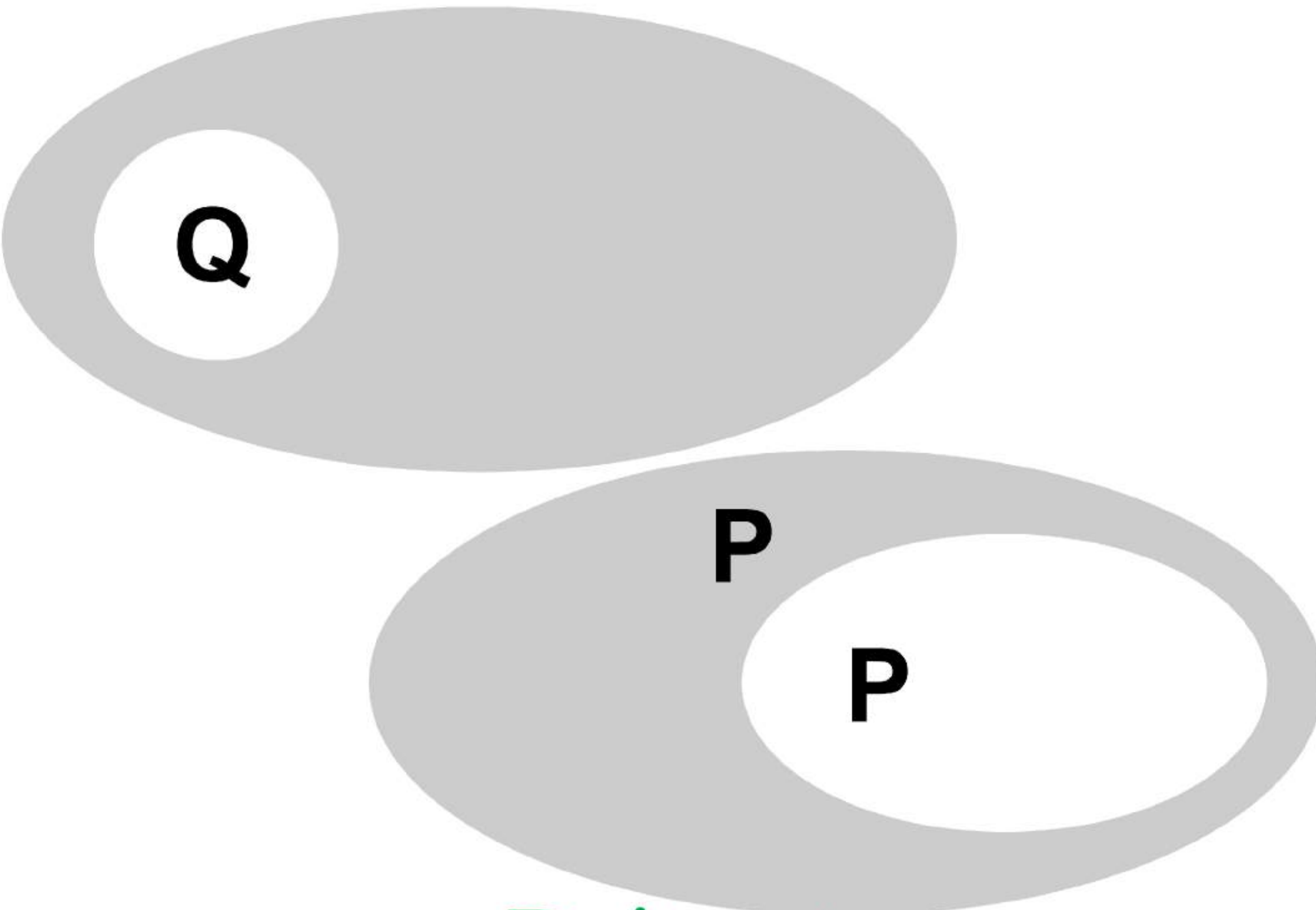
Second Hand-out on Existential Graphs, question 11



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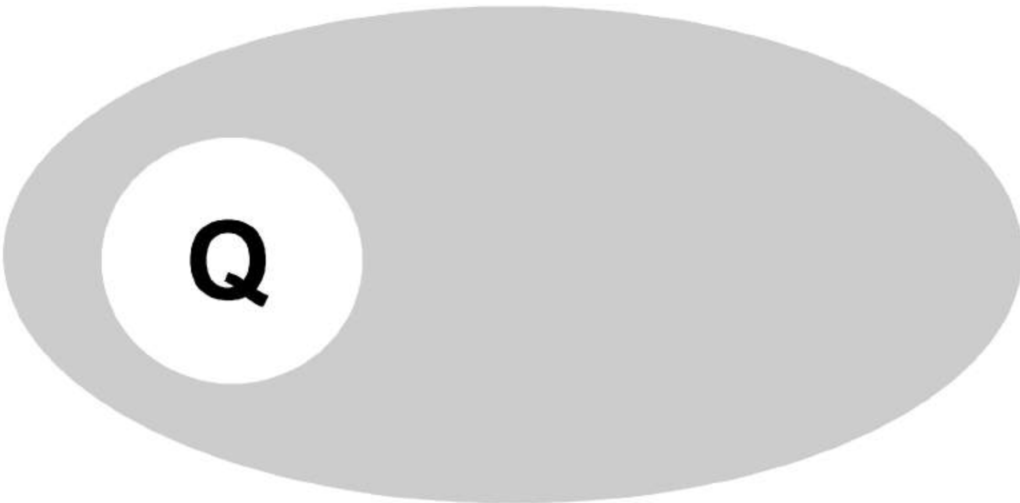
Second Hand-out on Existential Graphs, question 11



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Second Hand-out on Existential Graphs, question 11

Q

Double cut

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Second Hand-out on Existential Graphs, question 11

Q

Conclusion

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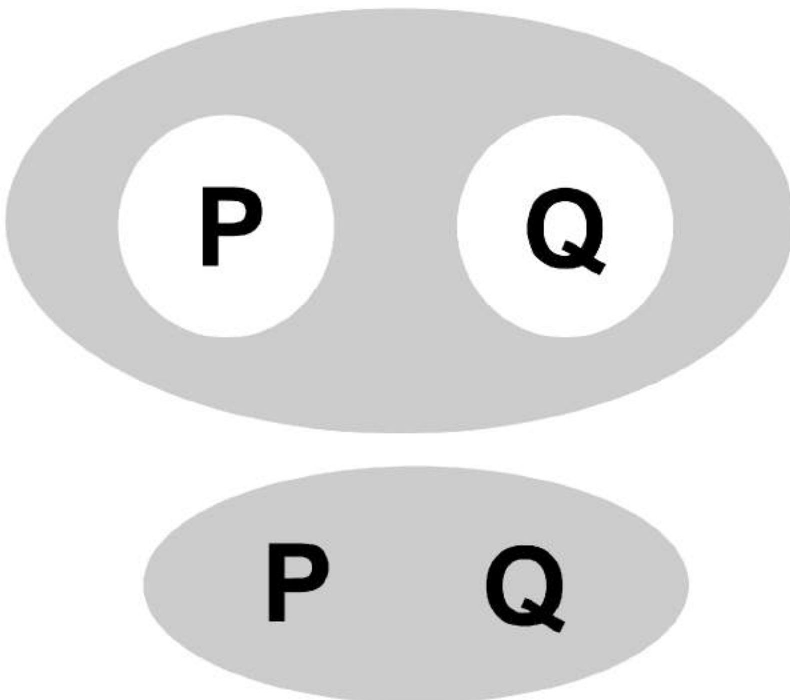
Second Hand-out on Existential Graphs, question 12



Premises

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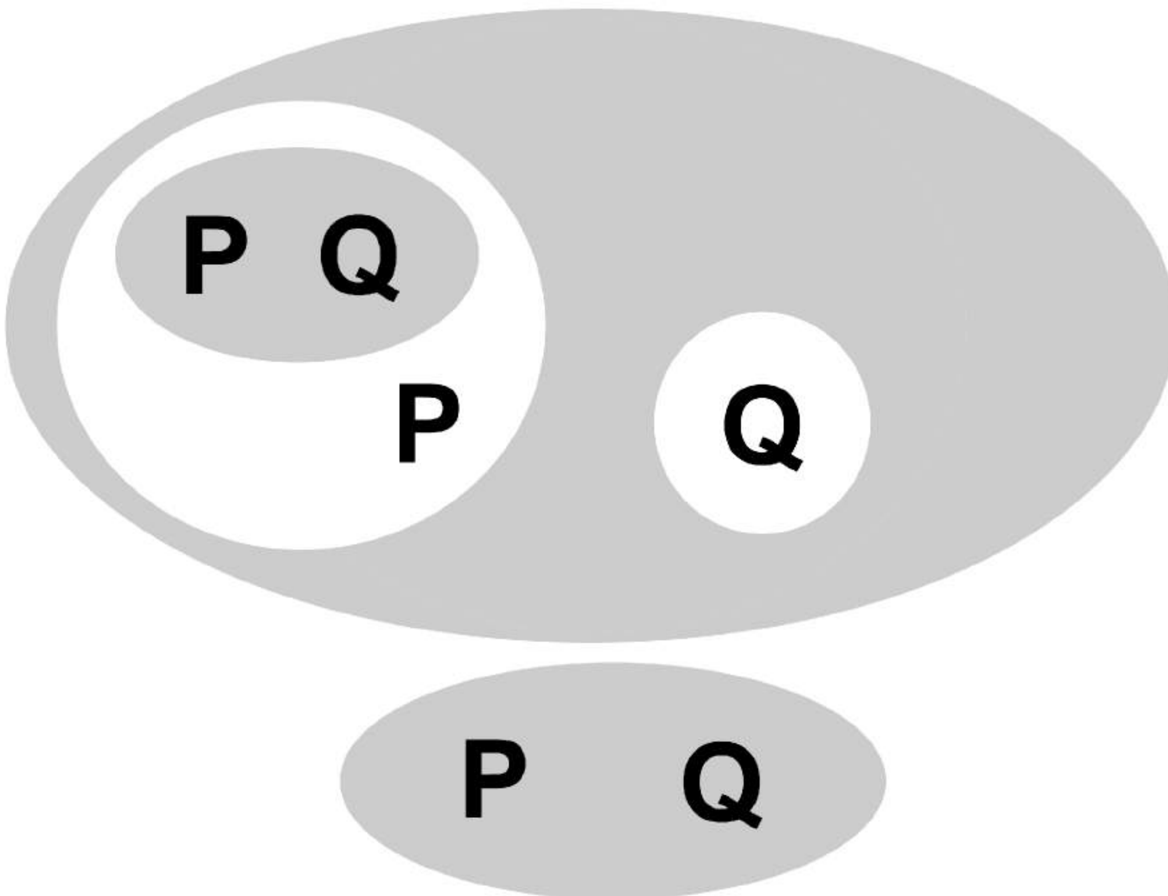
Second Hand-out on Existential Graphs, question 12



Iterate

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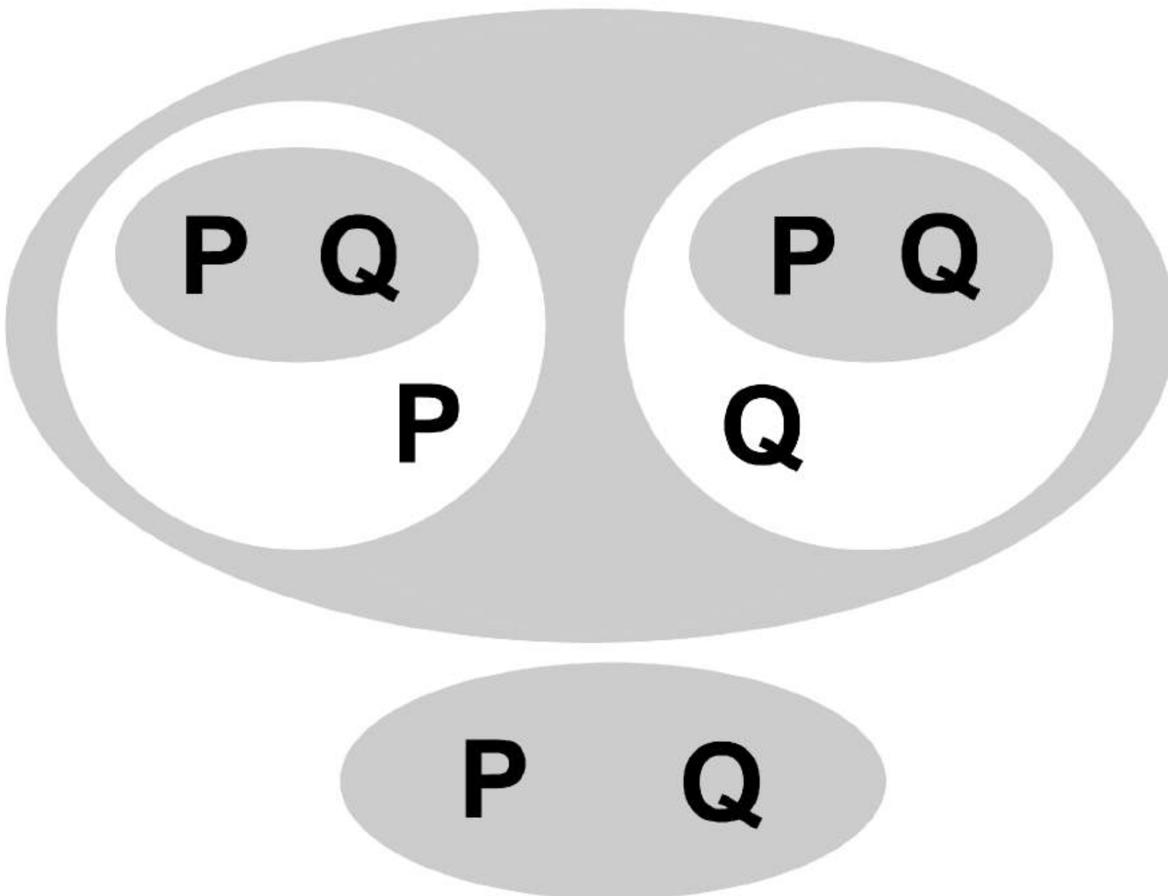
Second Hand-out on Existential Graphs, question 12



Iterate

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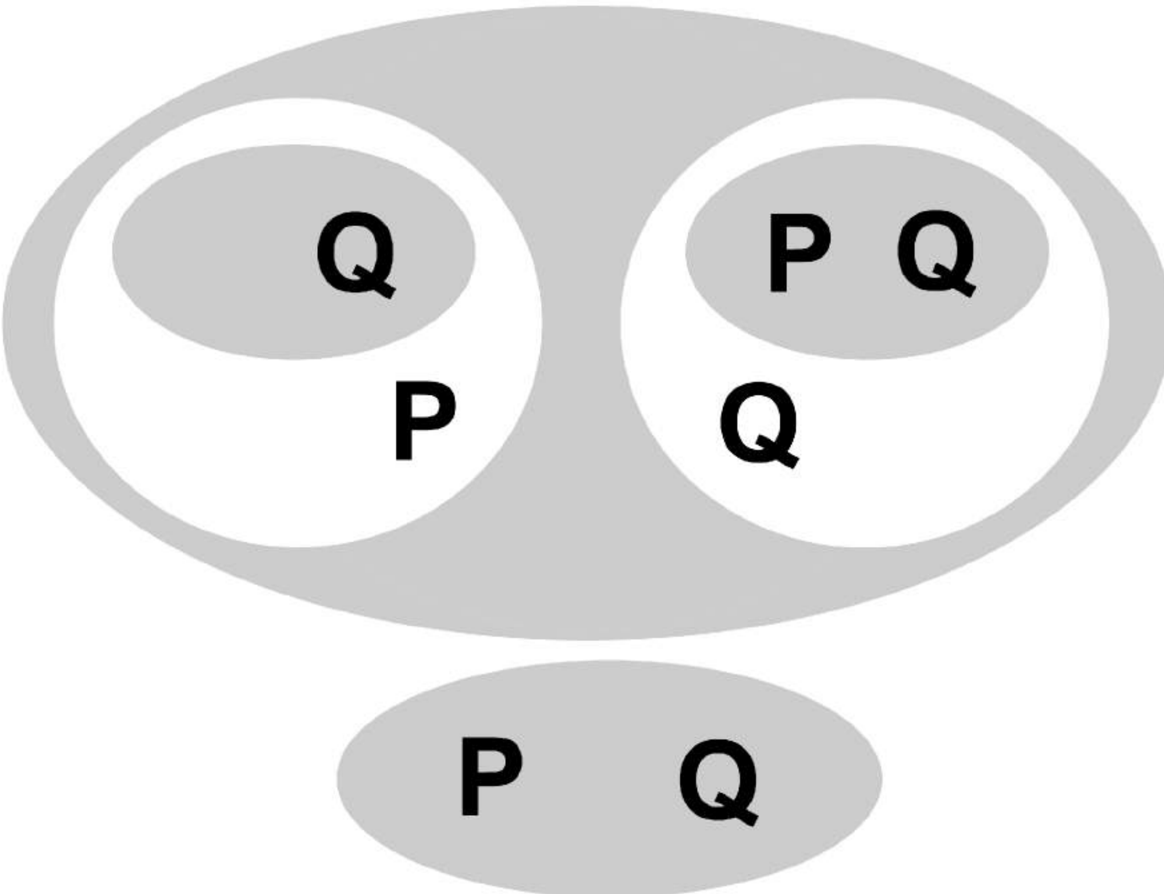
Second Hand-out on Existential Graphs, question 12



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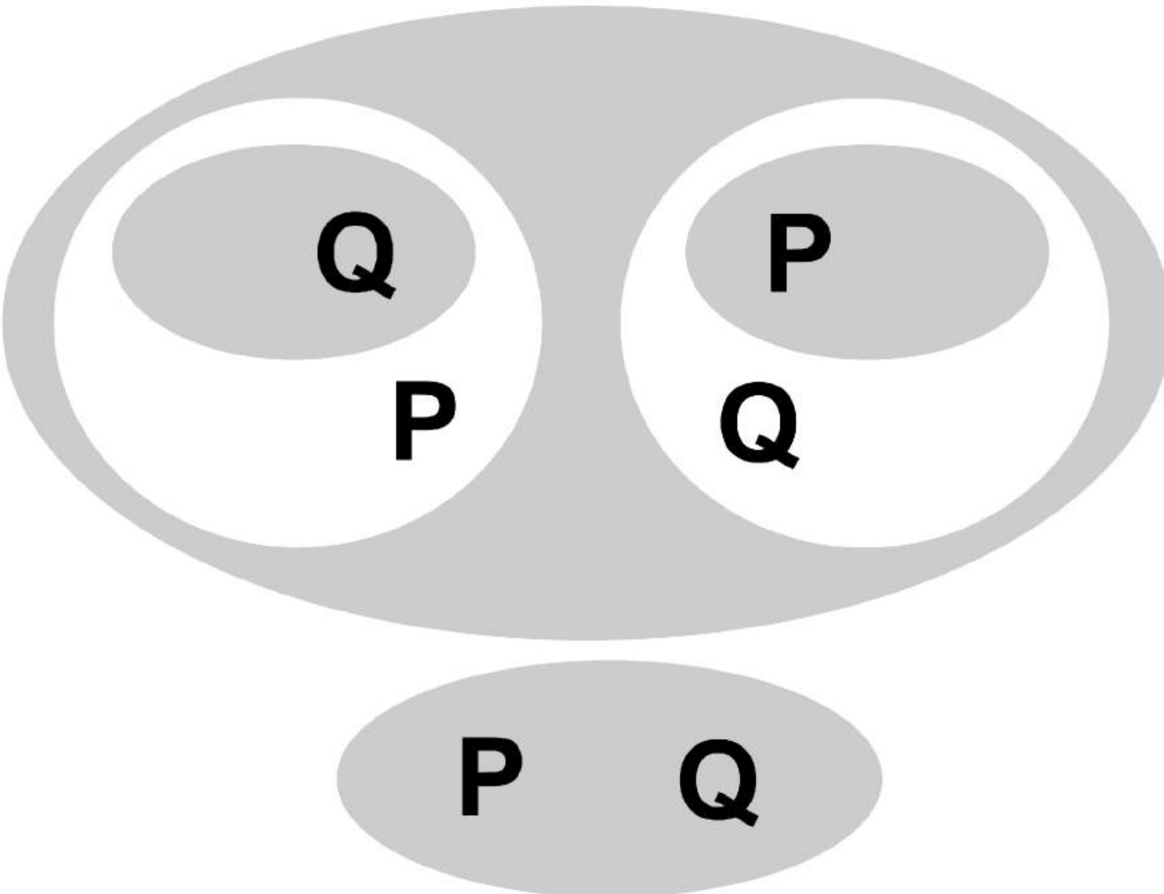
Second Hand-out on Existential Graphs, question 12



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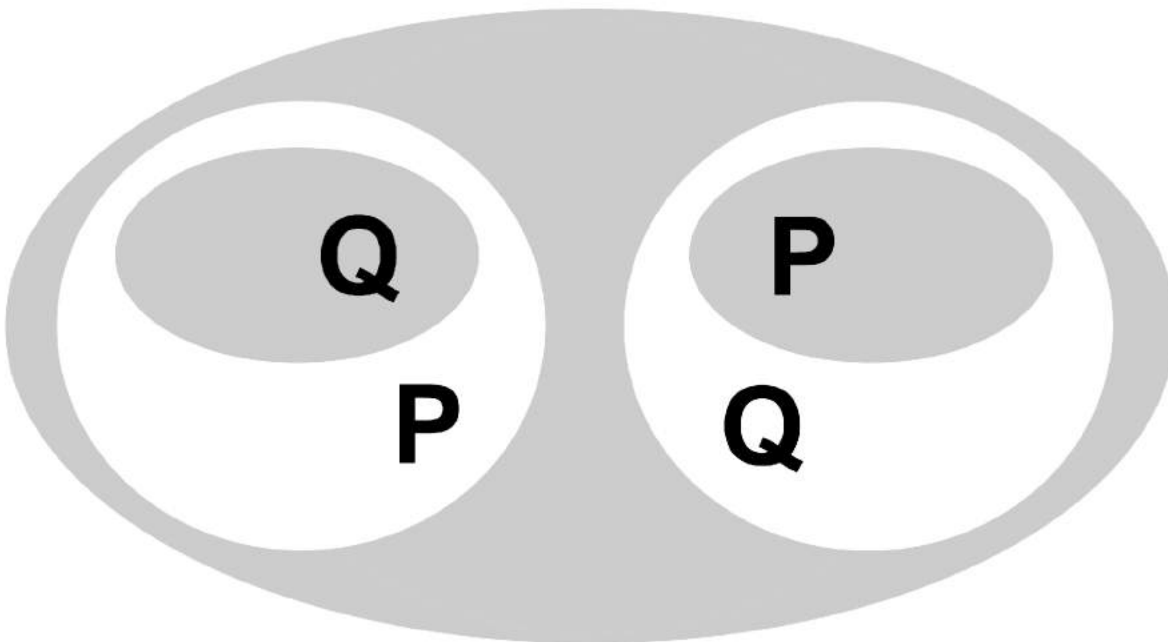
Second Hand-out on Existential Graphs, question 12



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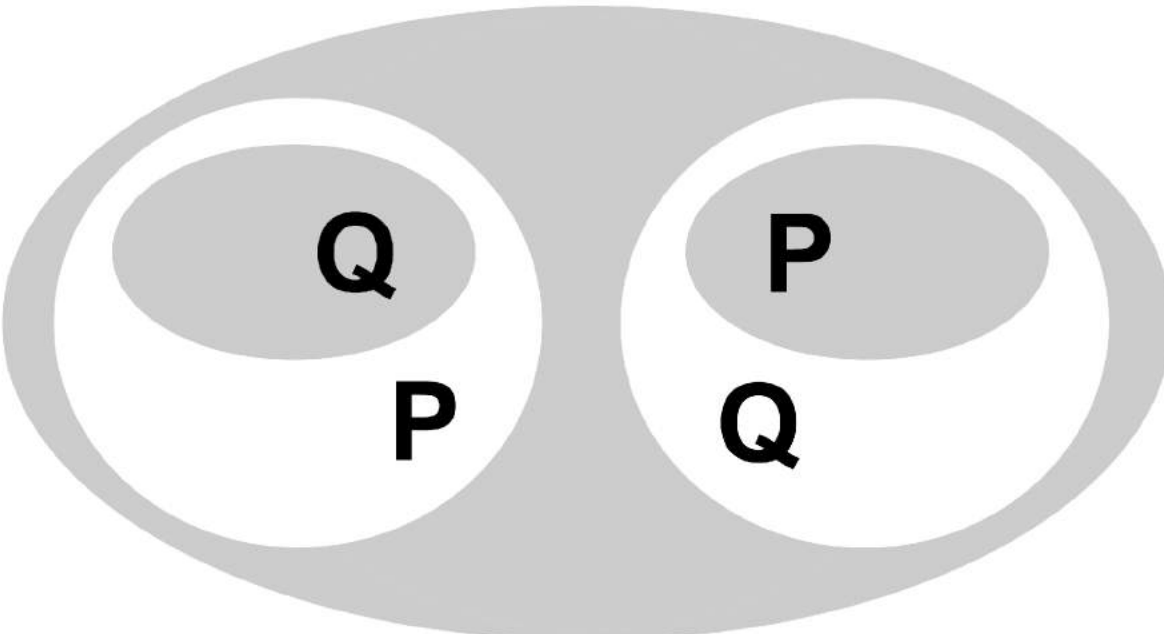
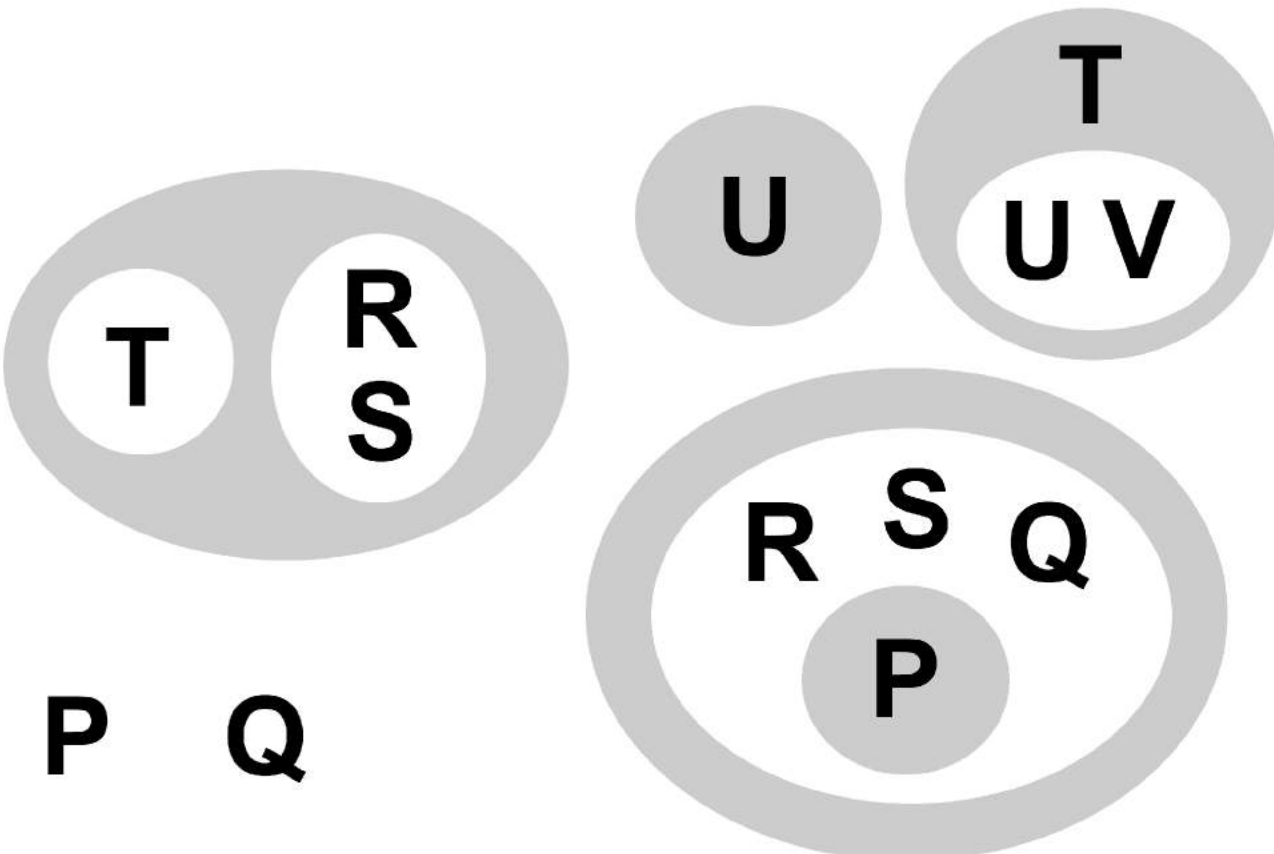
Second Hand-out on Existential Graphs, question 12



Conclusion

Prepared by Dr. Marc Champagne for PHIL 1150

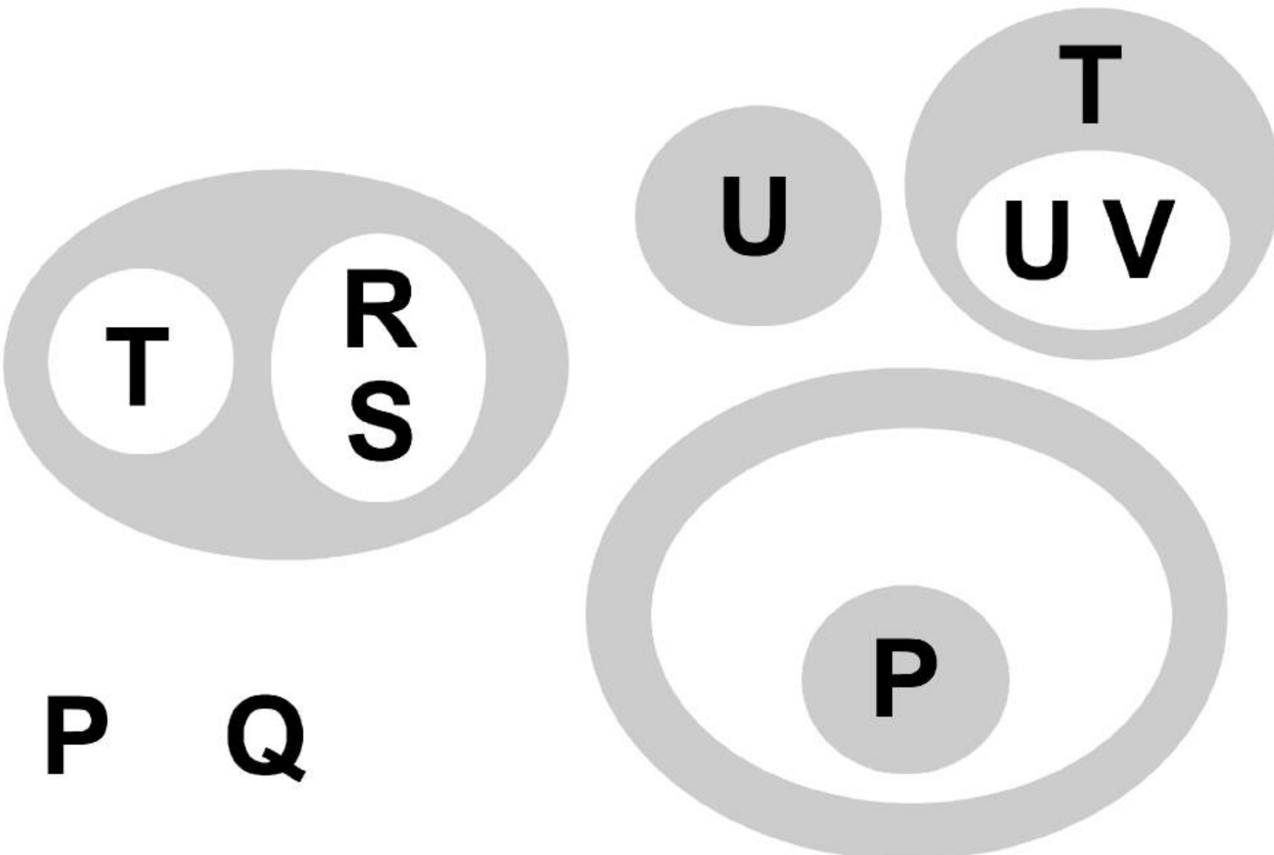
Second Hand-out on Existential Graphs, question 13



Negated conclusion

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 13



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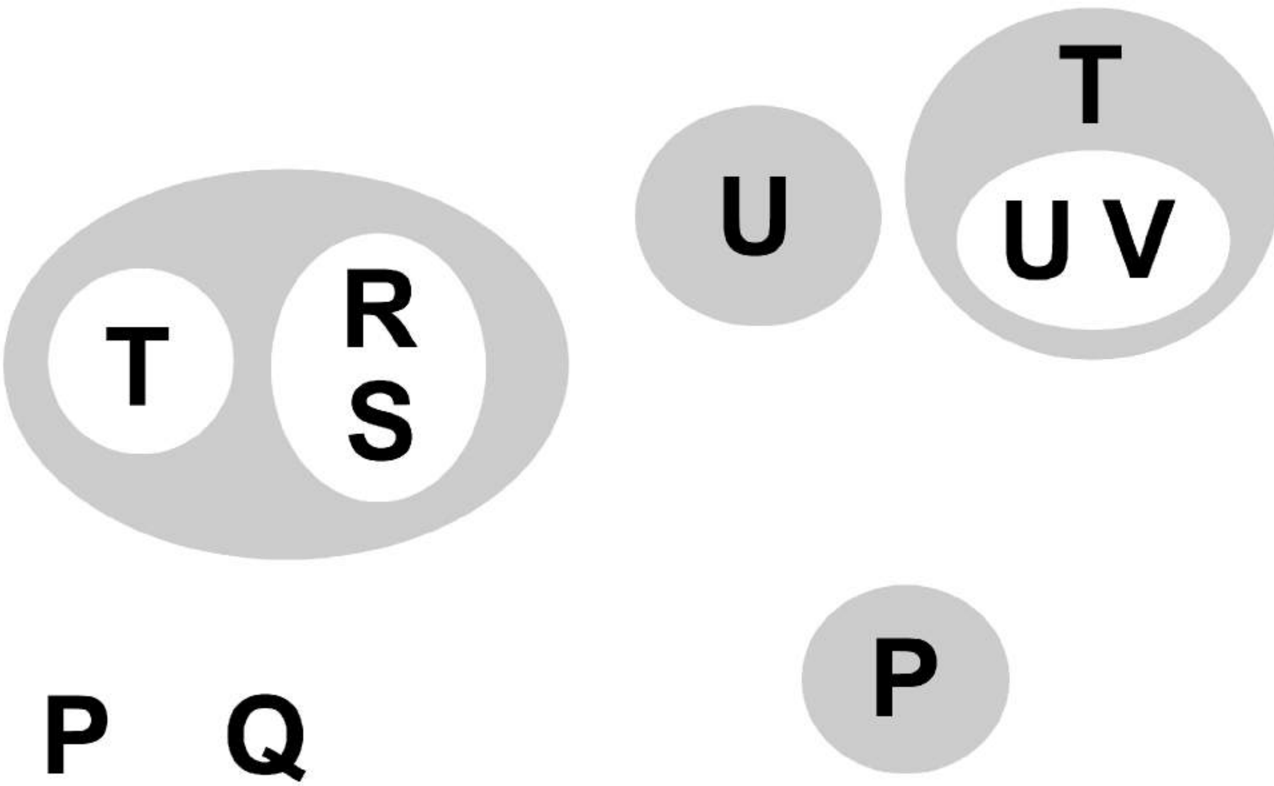
Second Hand-out on Existential Graphs, question 13



Double cut

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Second Hand-out on Existential Graphs, question 13

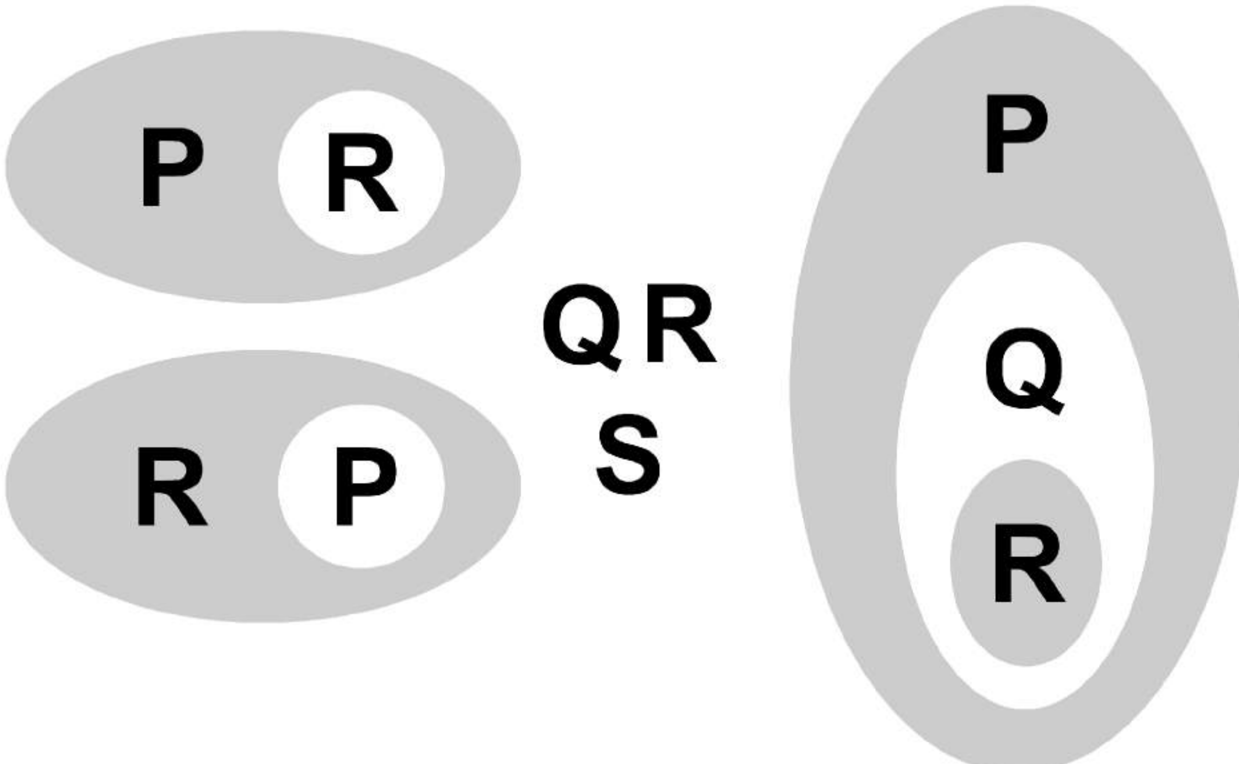
Erase

Second Hand-out on Existential Graphs, question 13

Contrapiction

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 14



Negated conclusion

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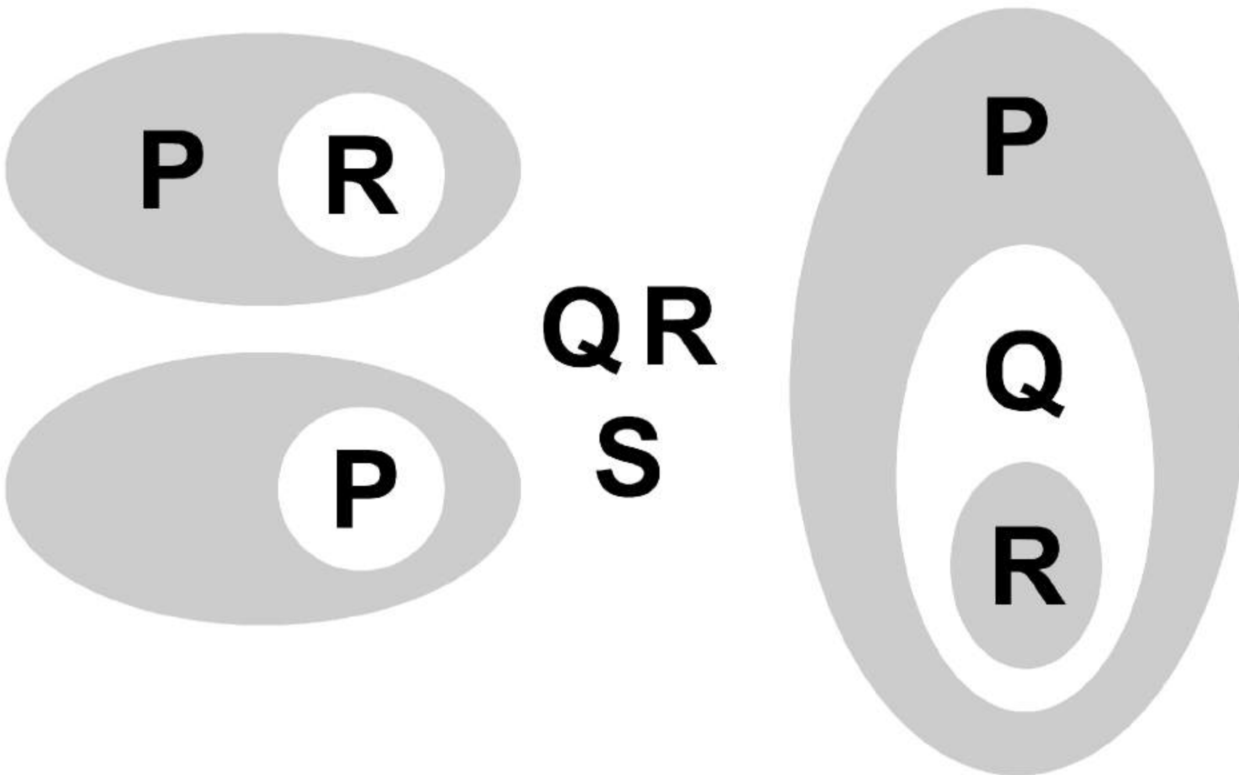
Second Hand-out on Existential Graphs, question 14



Deiterate

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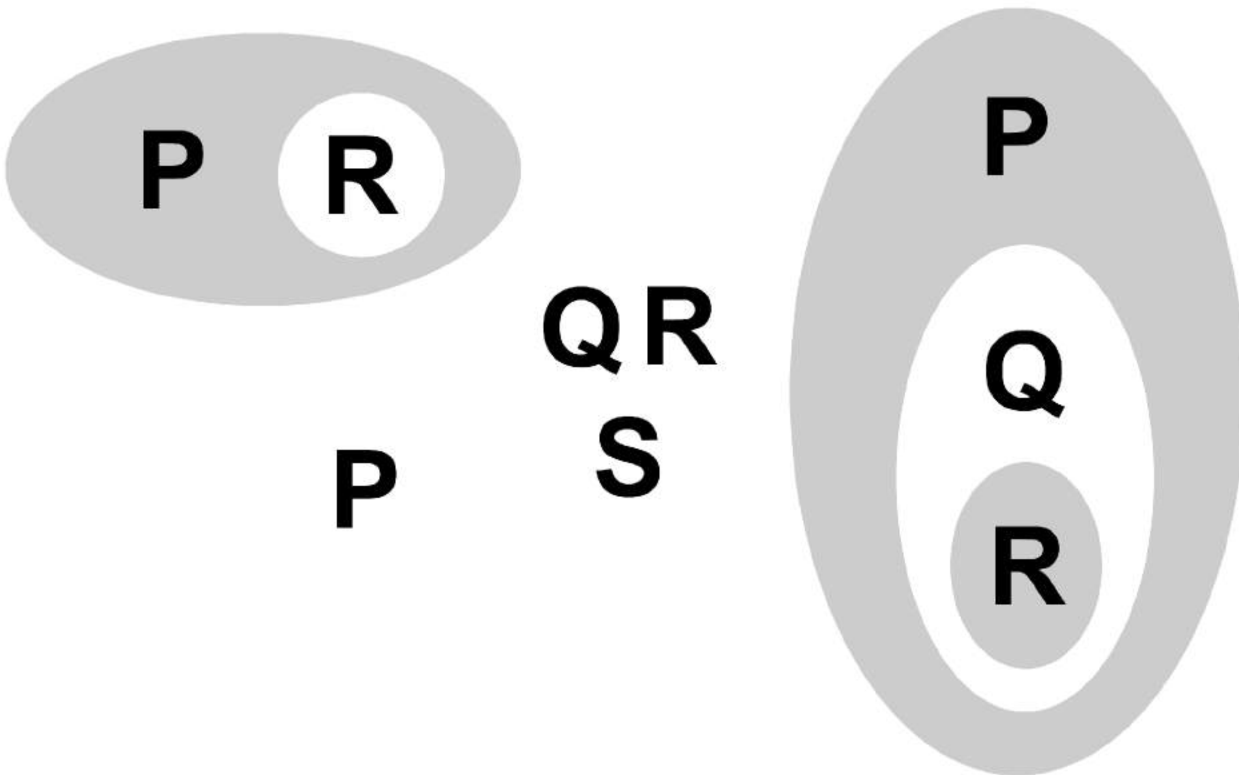
Second Hand-out on Existential Graphs, question 14



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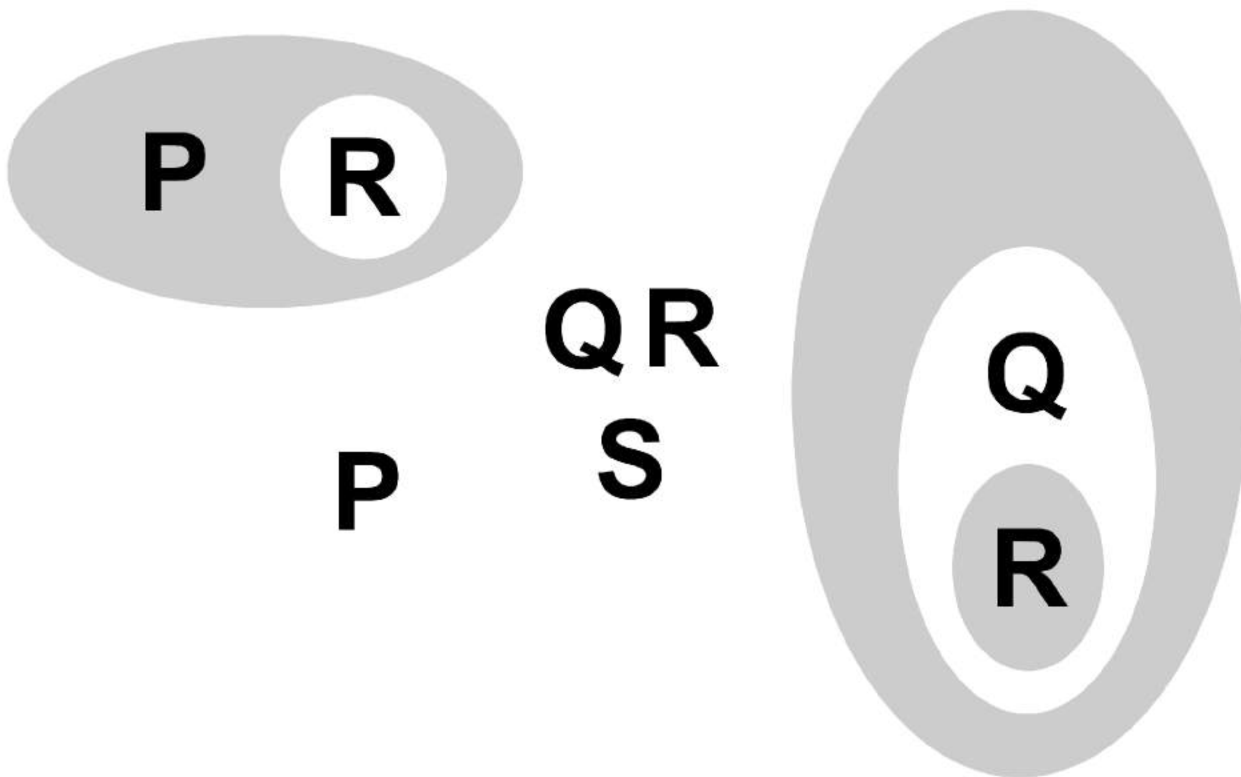
Second Hand-out on Existential Graphs, question 14



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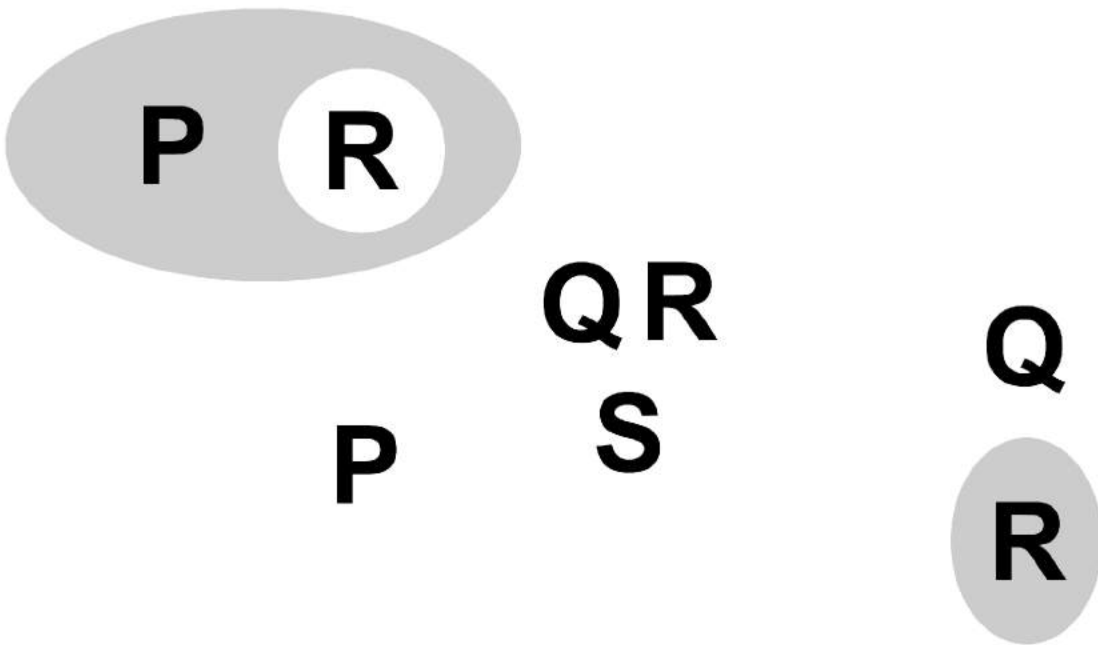
Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 14



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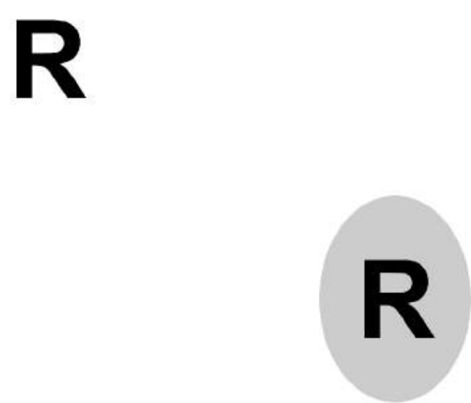
Second Hand-out on Existential Graphs, question 14



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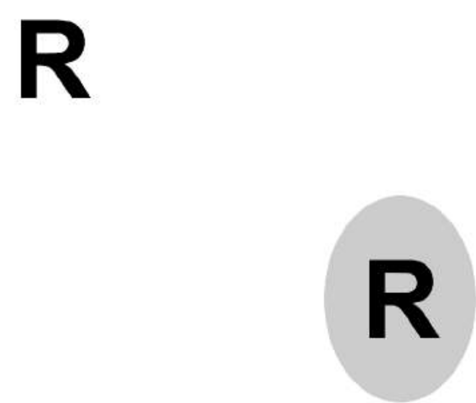
Second Hand-out on Existential Graphs, question 14



Contrapiction

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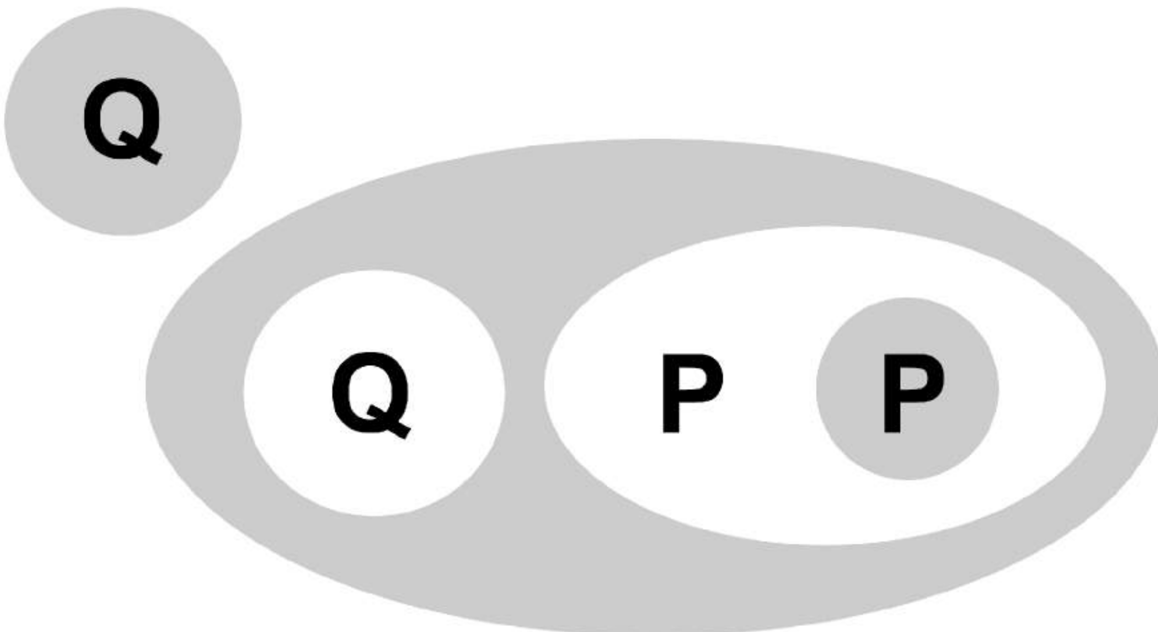
Second Hand-out on Existential Graphs, question 15



Negated conclusion

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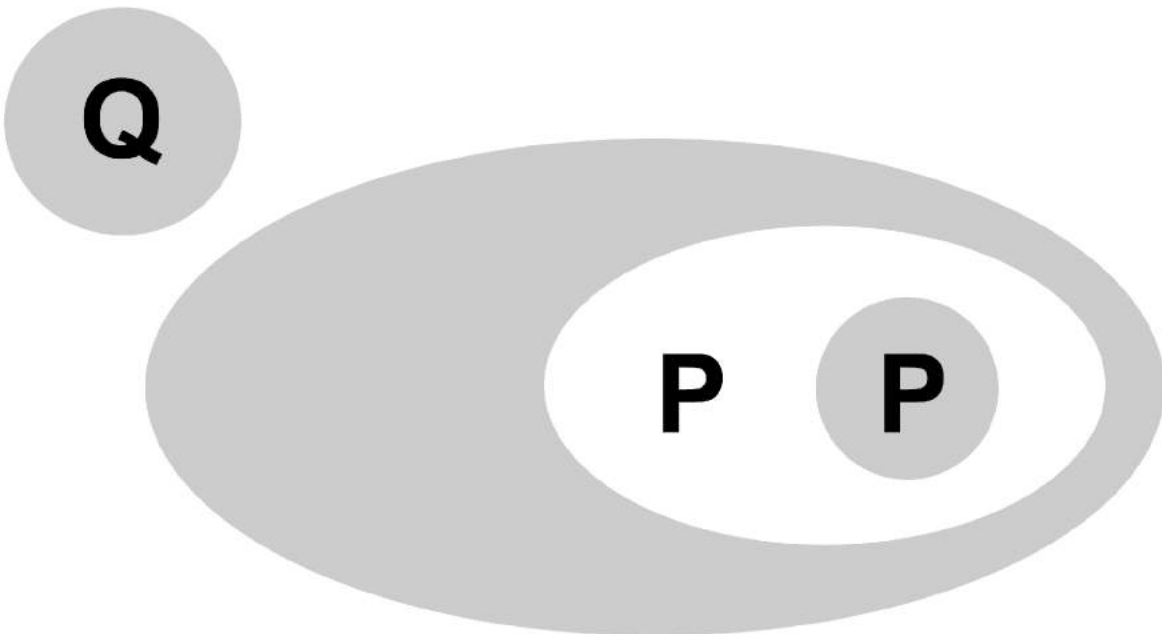
Second Hand-out on Existential Graphs, question 15



Deiterate

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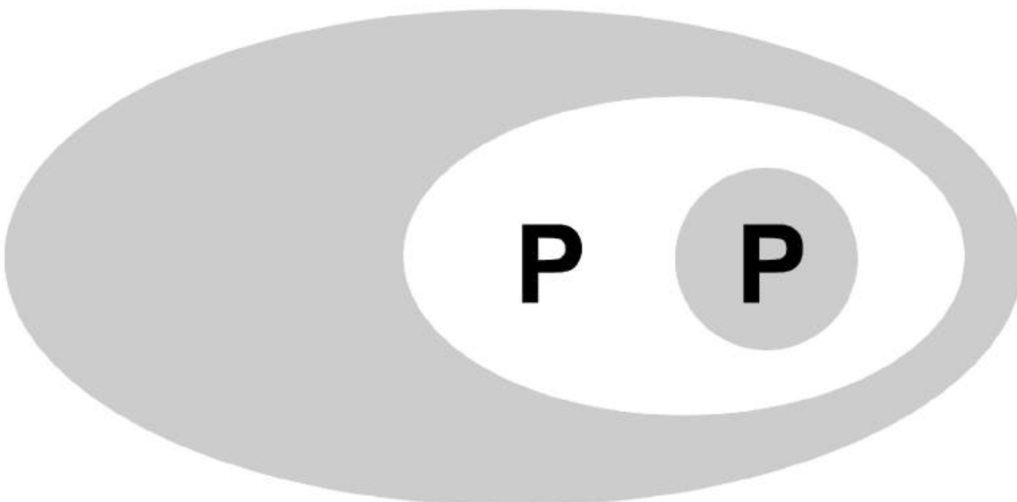
Second Hand-out on Existential Graphs, question 15



Erase

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Second Hand-out on Existential Graphs, question 15

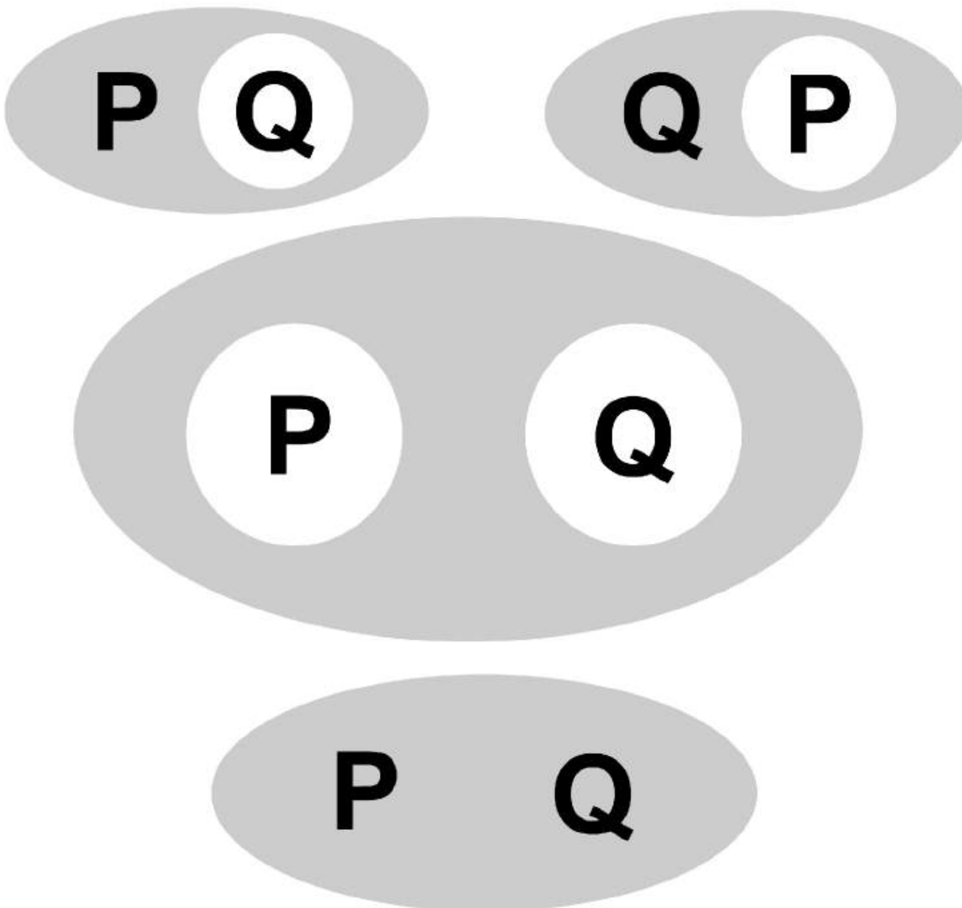
Double cut

Second Hand-out on Existential Graphs, question 15

Contrapiction

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 16



Negated conclusion

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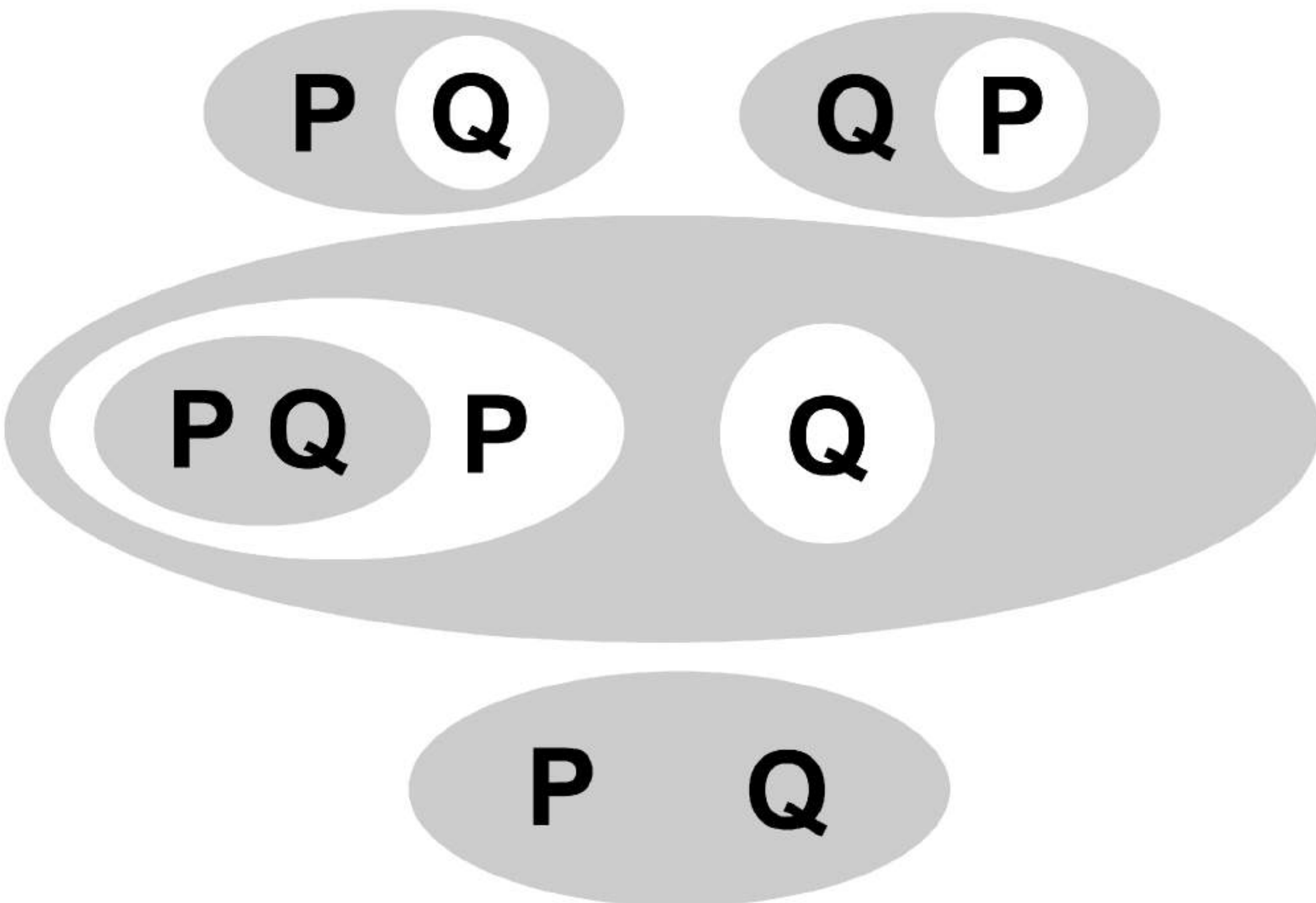
Second Hand-out on Existential Graphs, question 16



Iterate

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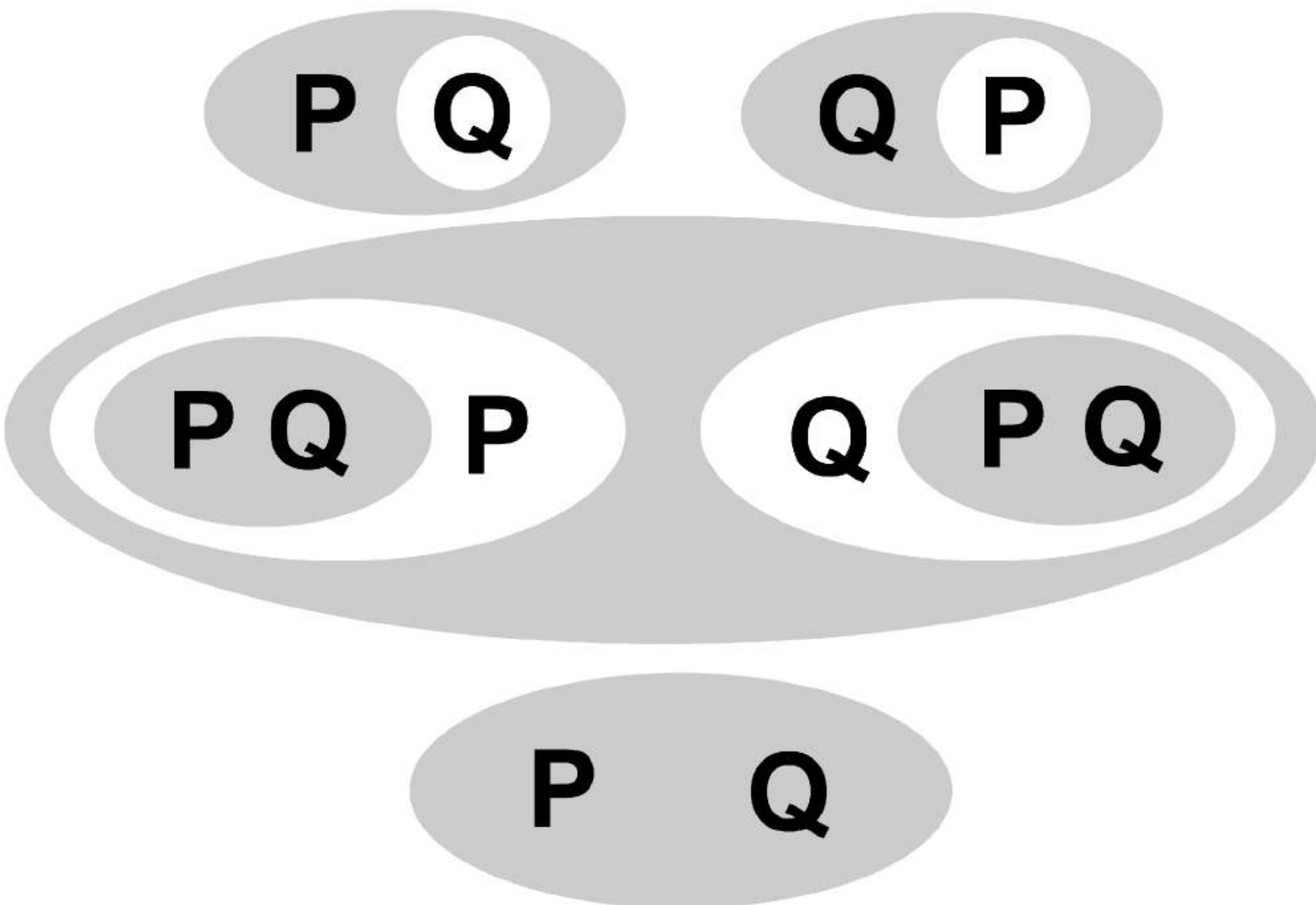
Second Hand-out on Existential Graphs, question 16



Iterate

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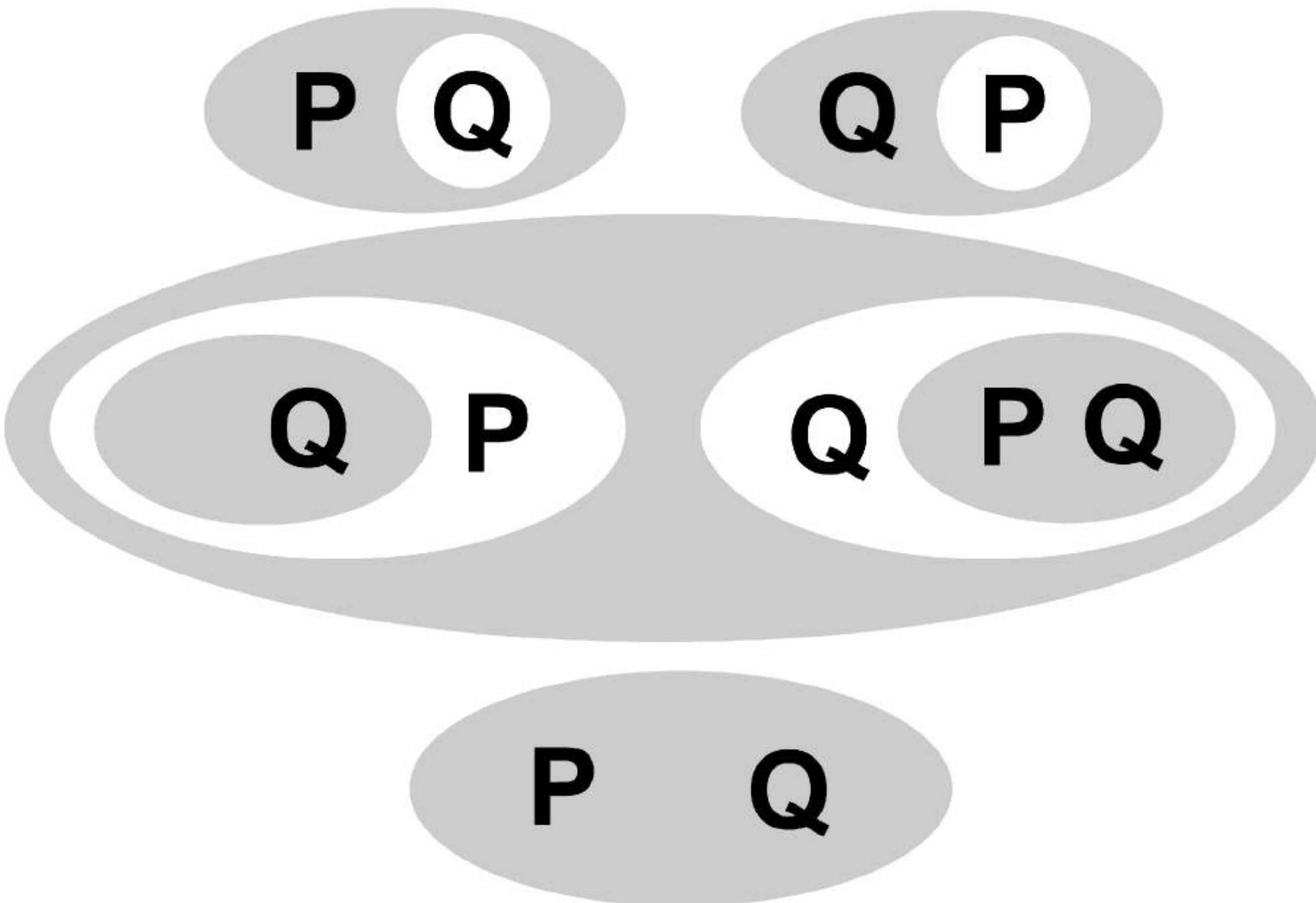
Second Hand-out on Existential Graphs, question 16



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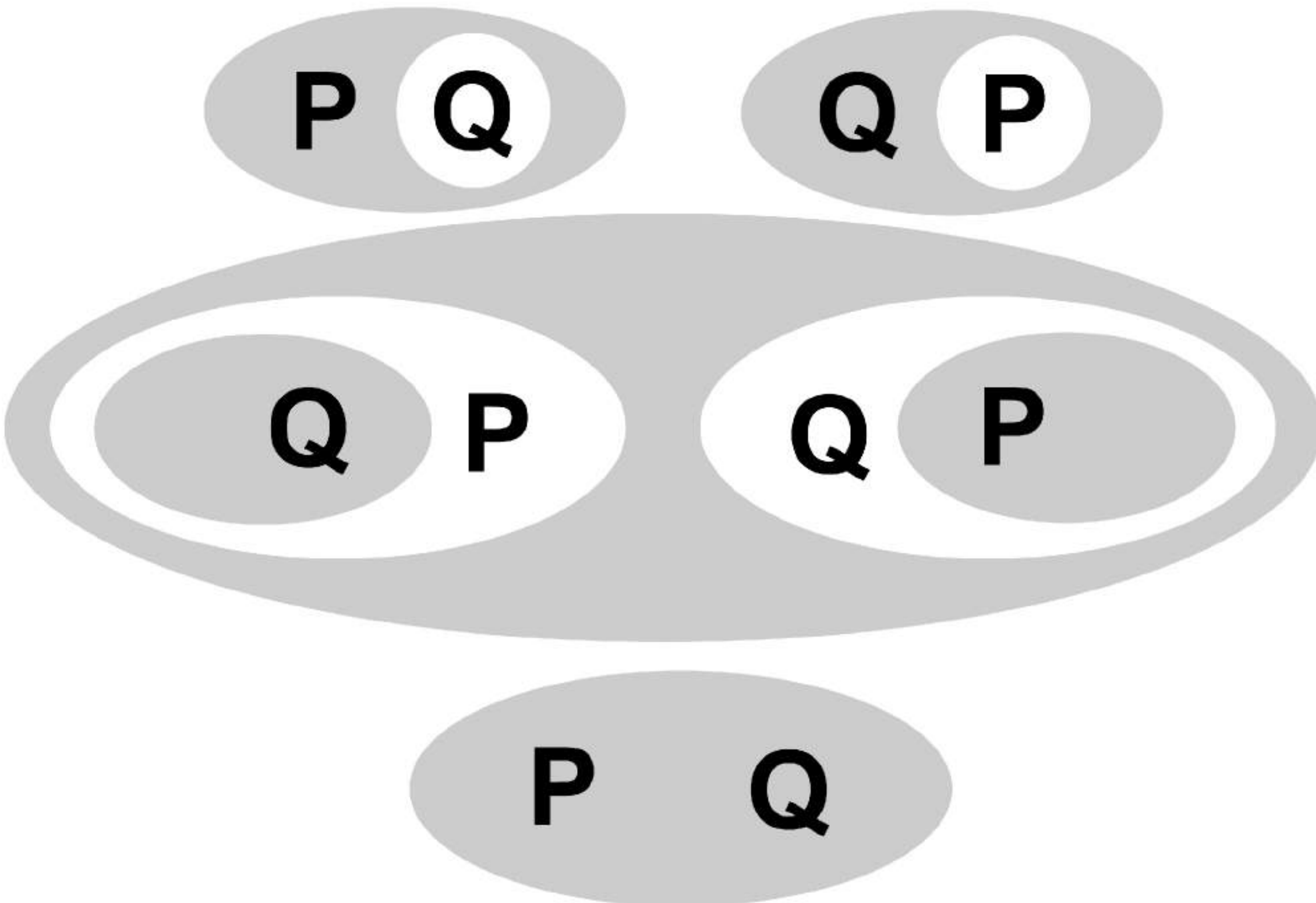
Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 16



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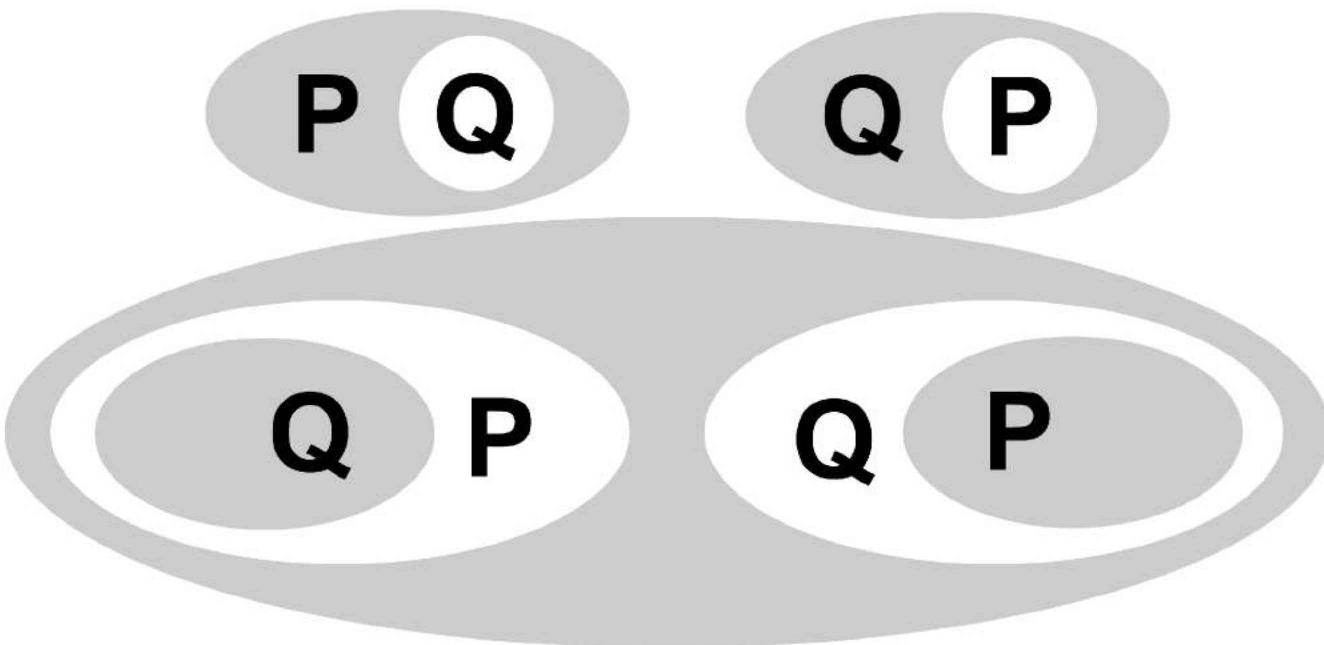
Second Hand-out on Existential Graphs, question 16



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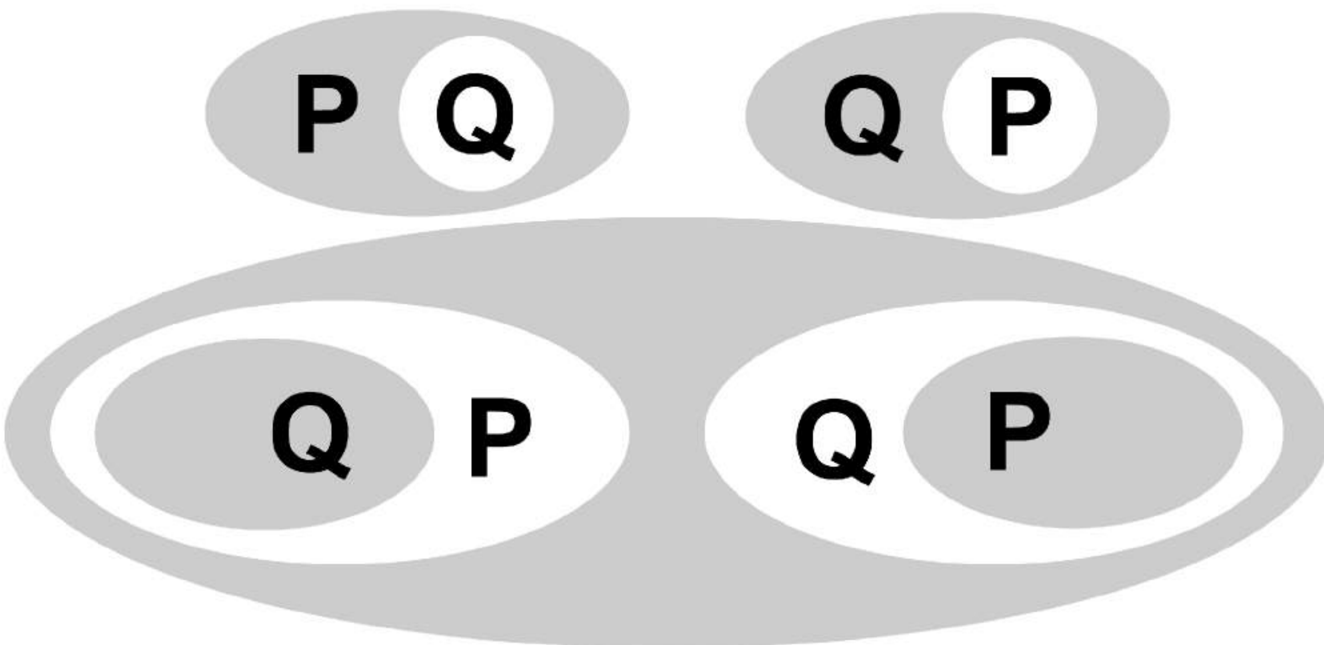
Second Hand-out on Existential Graphs, question 16



Contrapiction

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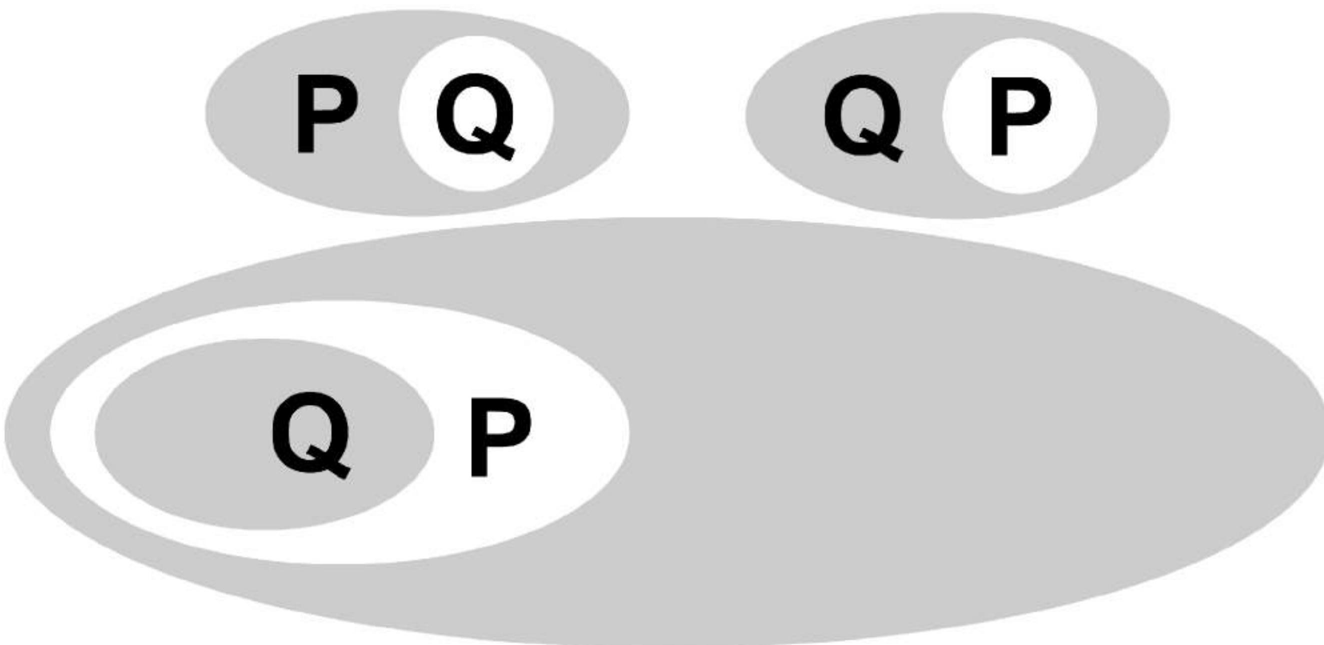
Second Hand-out on Existential Graphs, question 16



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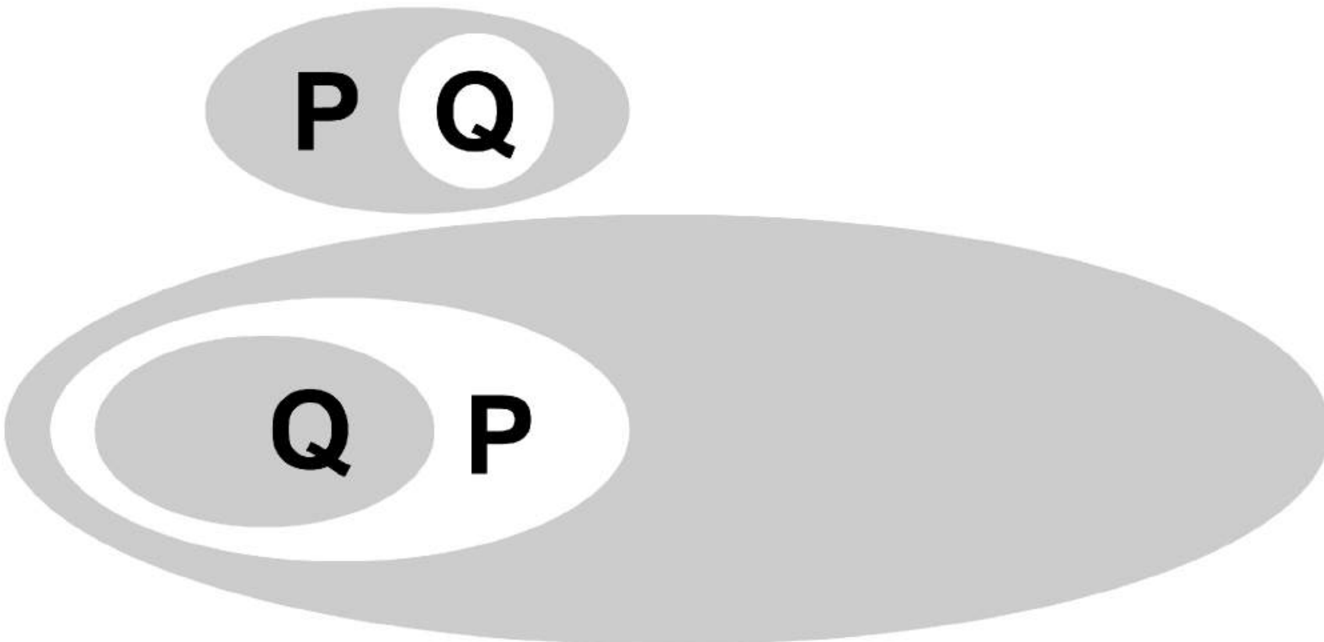
Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 16



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Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 16

Double cut

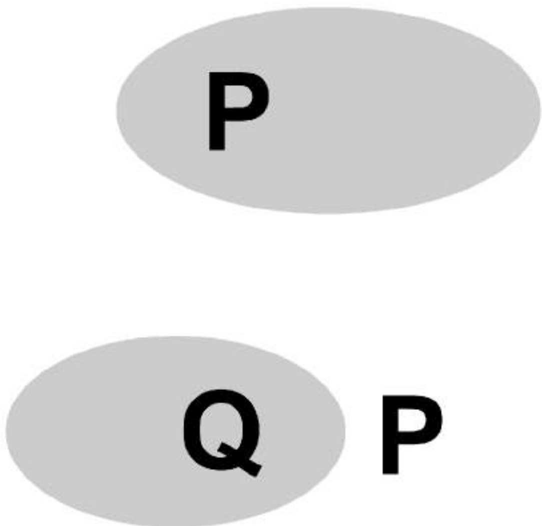
Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 16

Contrapiction

Prepared by Dr. Marc Champagne for PHIL 1150

Second Hand-out on Existential Graphs, question 16



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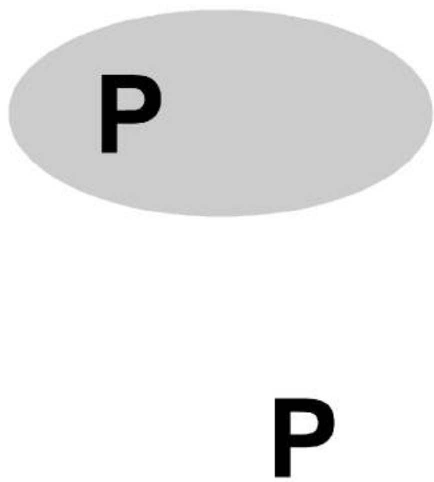
Second Hand-out on Existential Graphs, question 16



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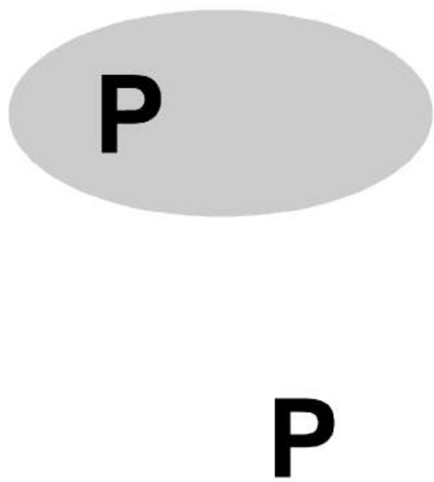
Second Hand-out on Existential Graphs, question 16



Contrapiction

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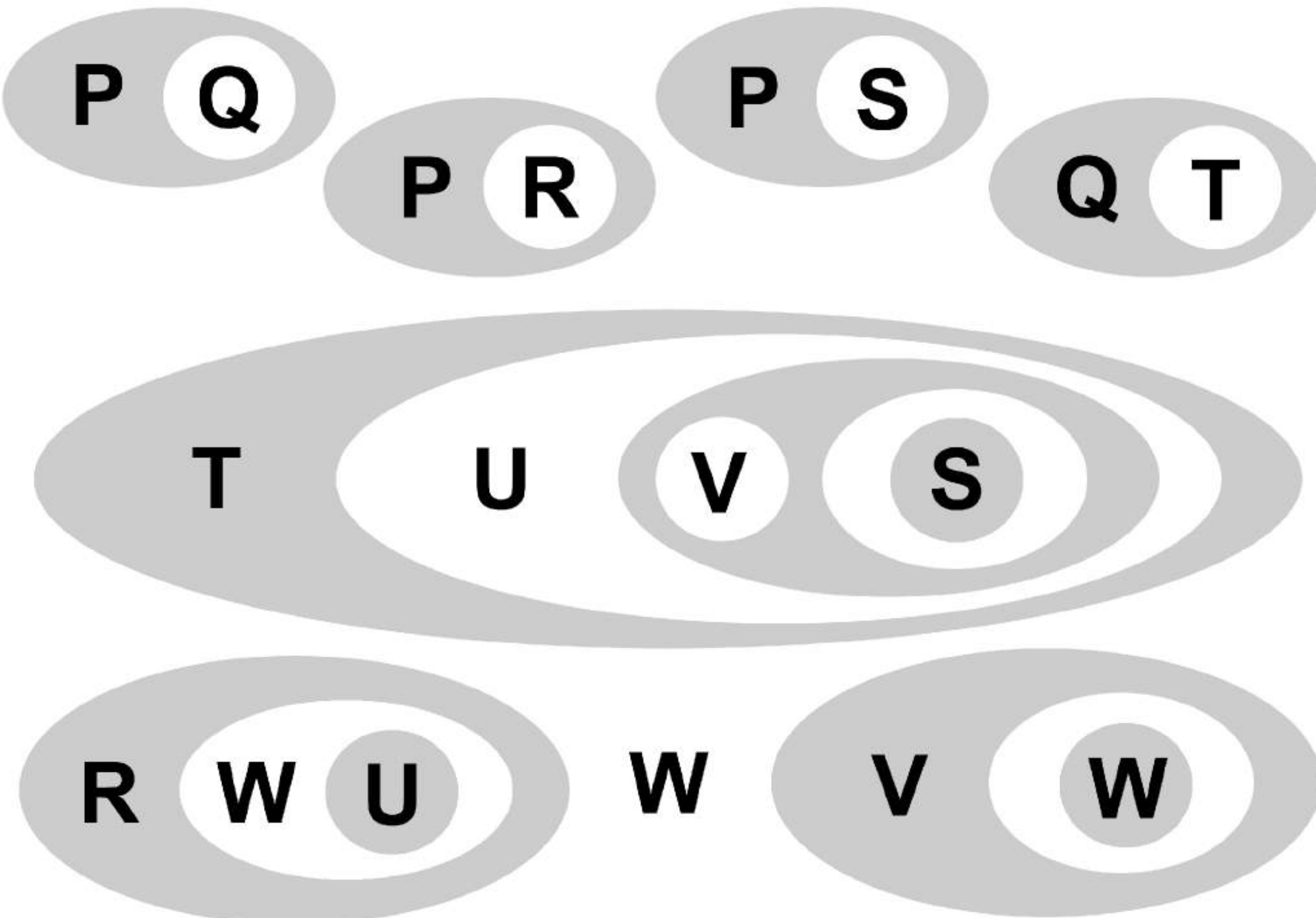
Extra Hand-out on Existential Graphs (direct)



Premises

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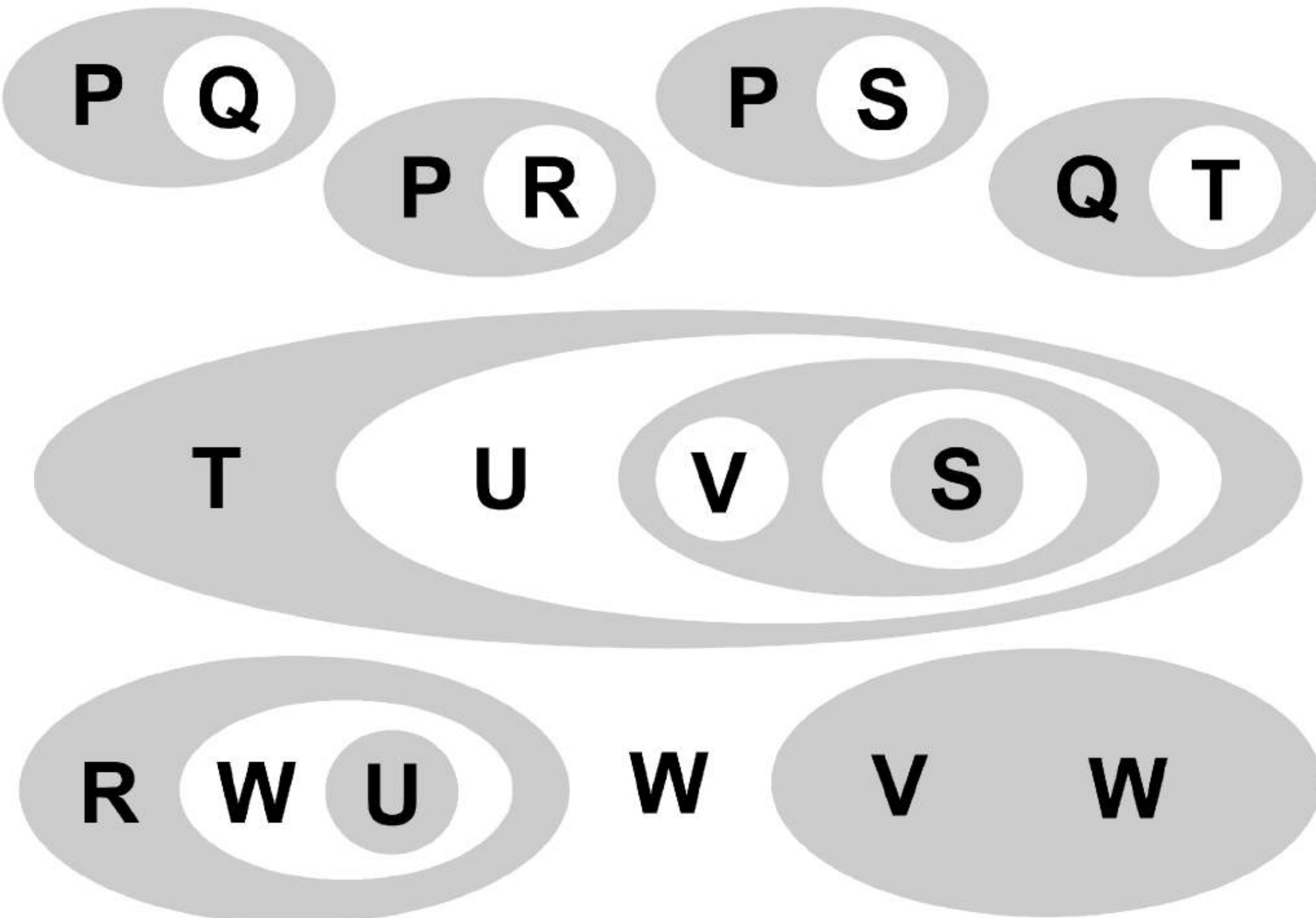
Extra Hand-out on Existential Graphs (direct)



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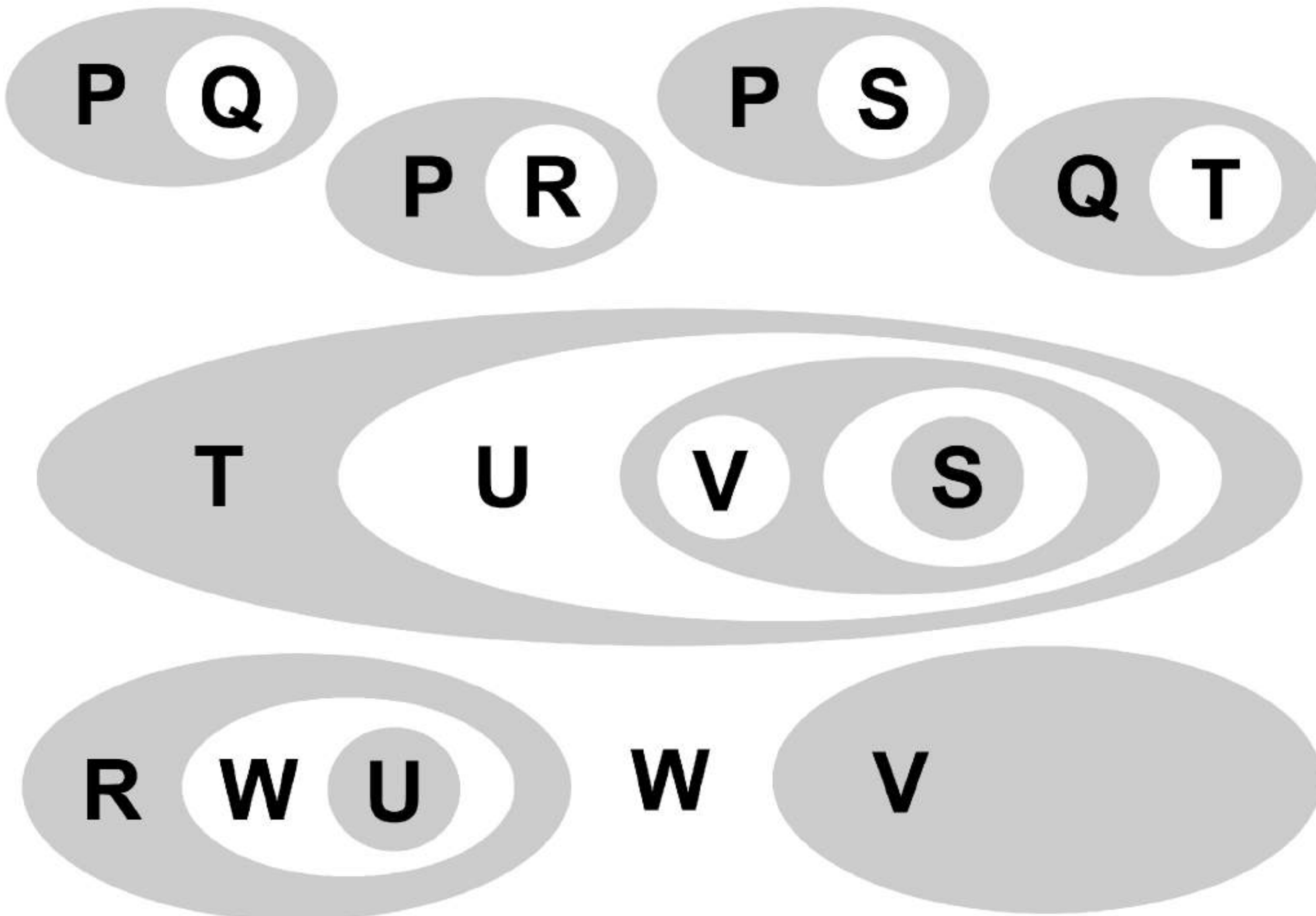
Extra Hand-out on Existential Graphs (direct)



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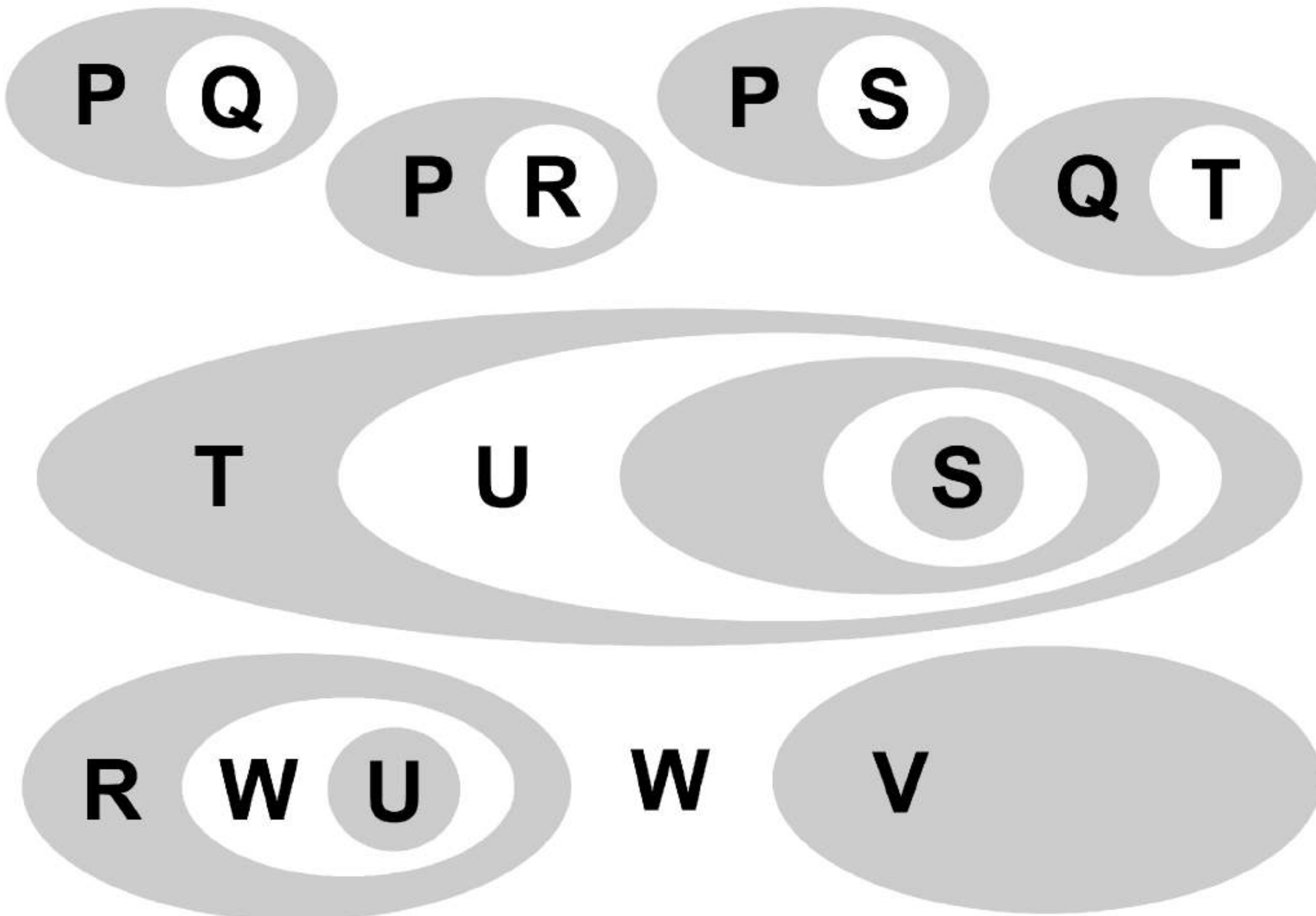

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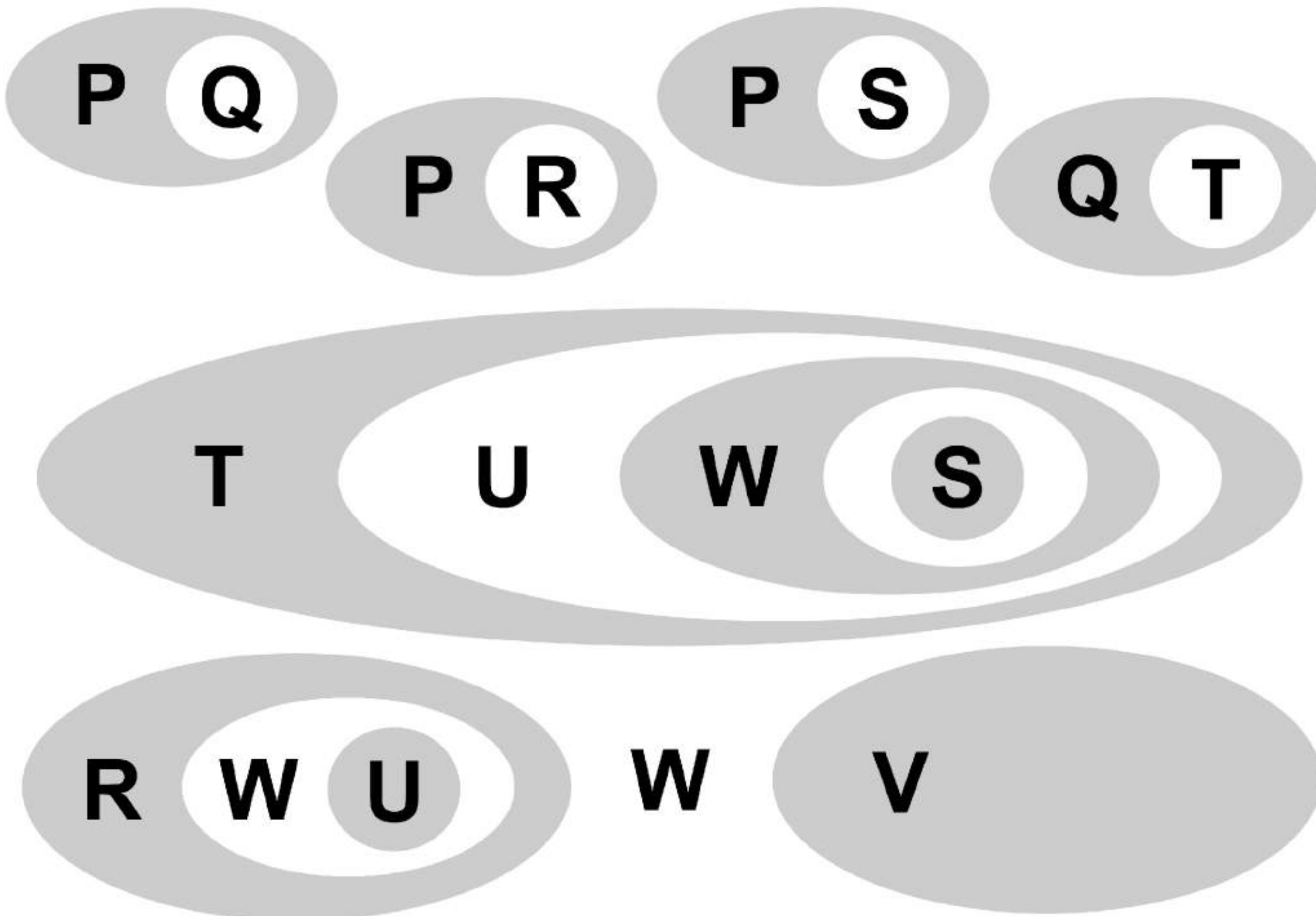

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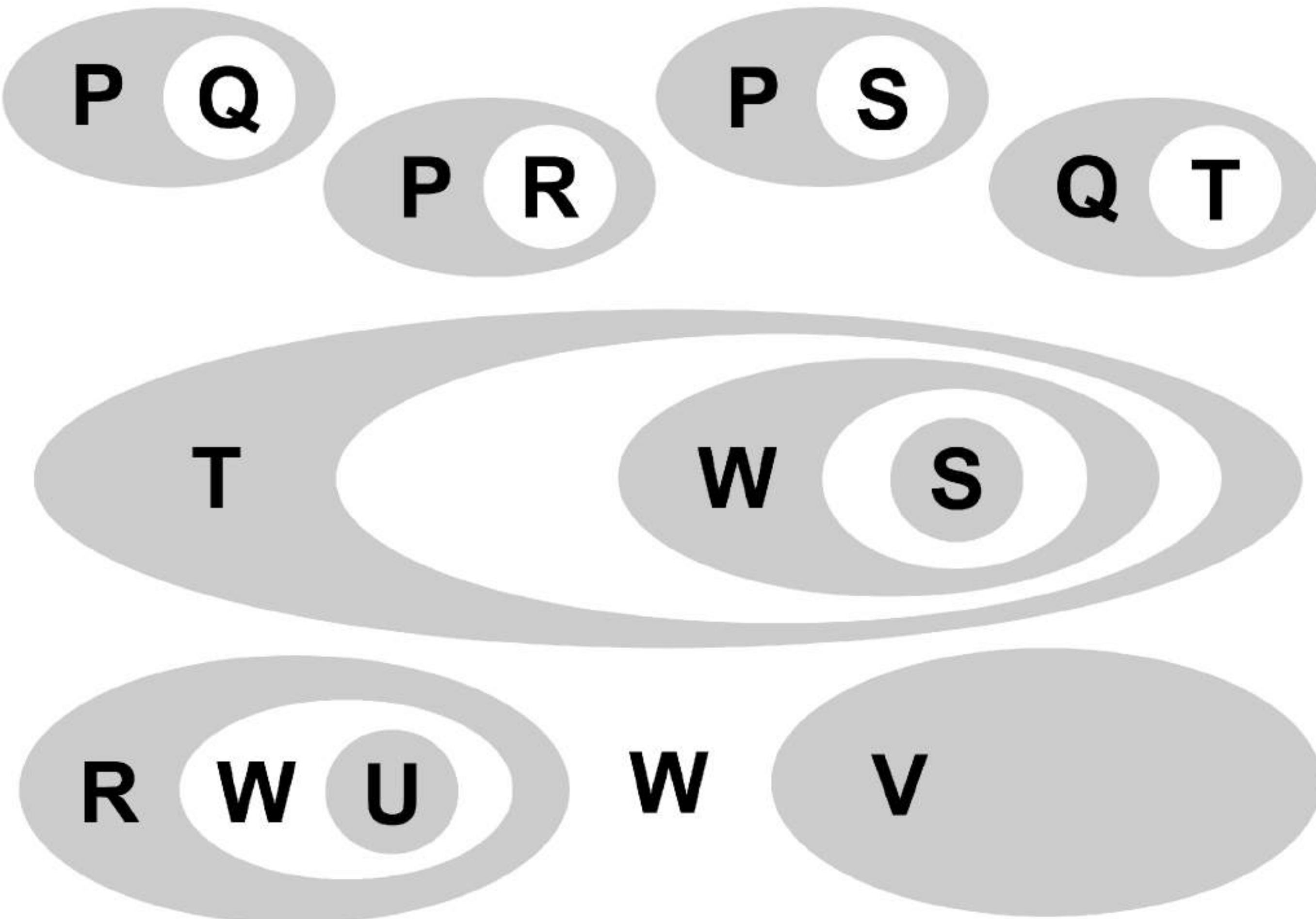
Extra Hand-out on Existential Graphs (direct)



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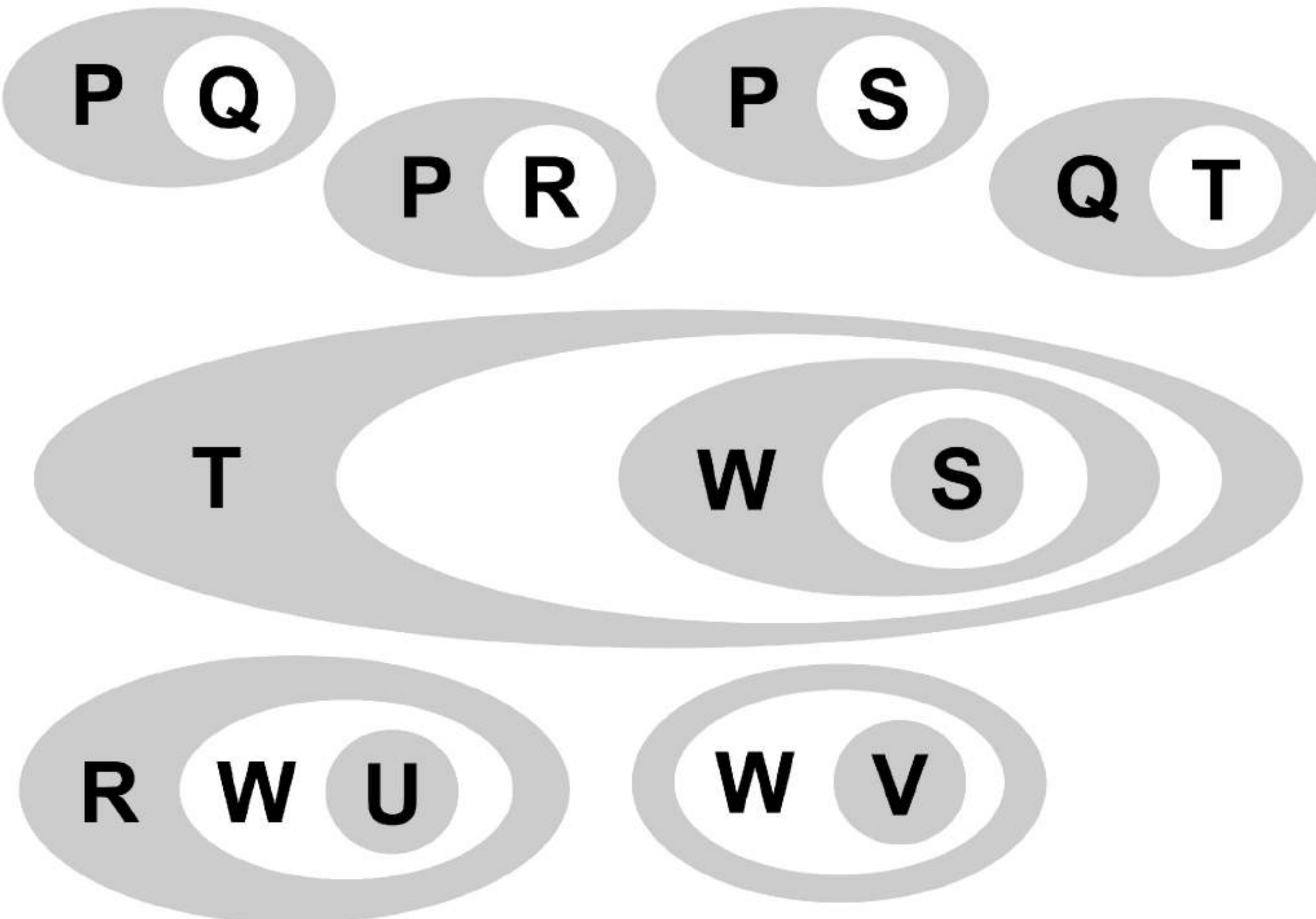

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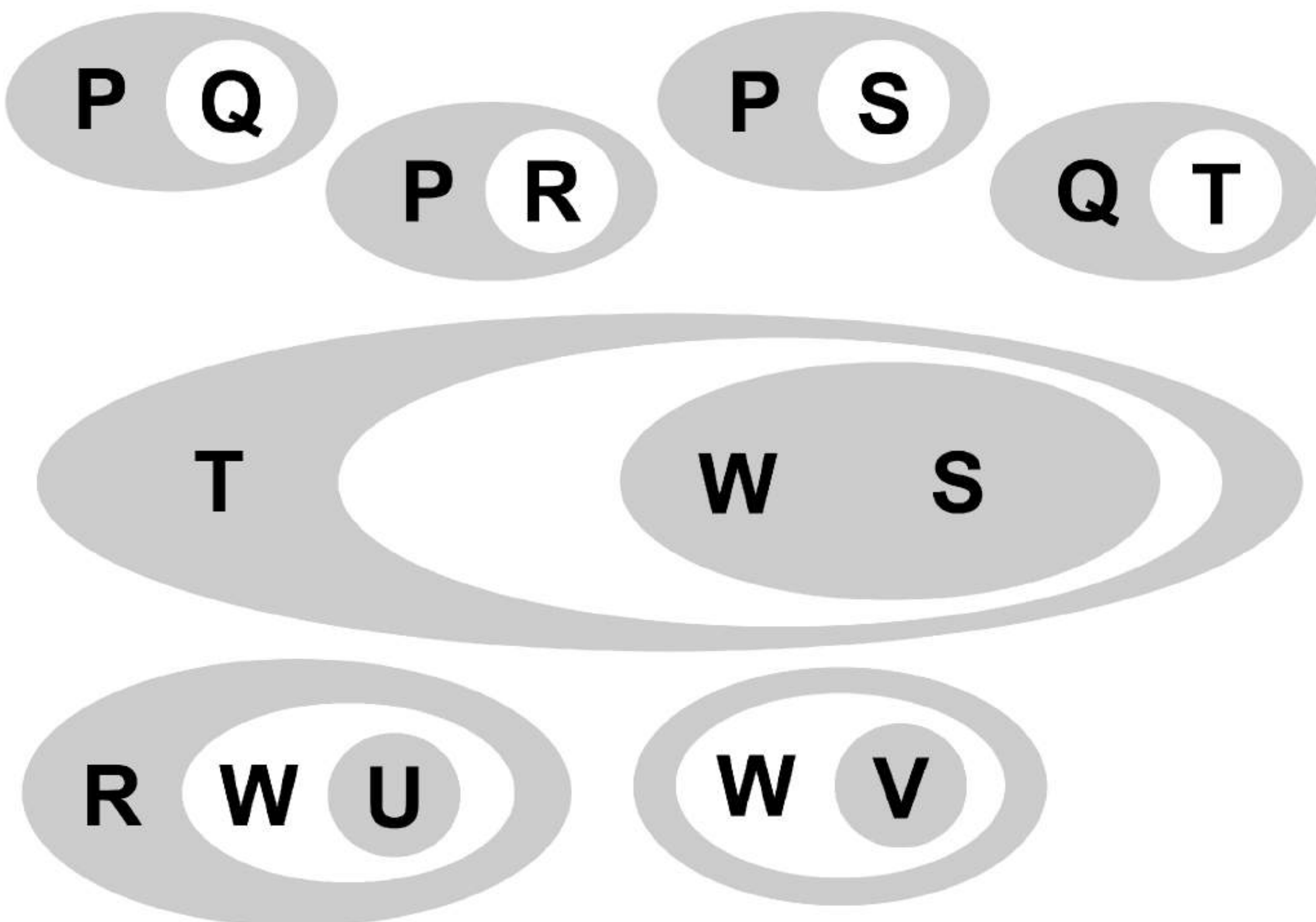

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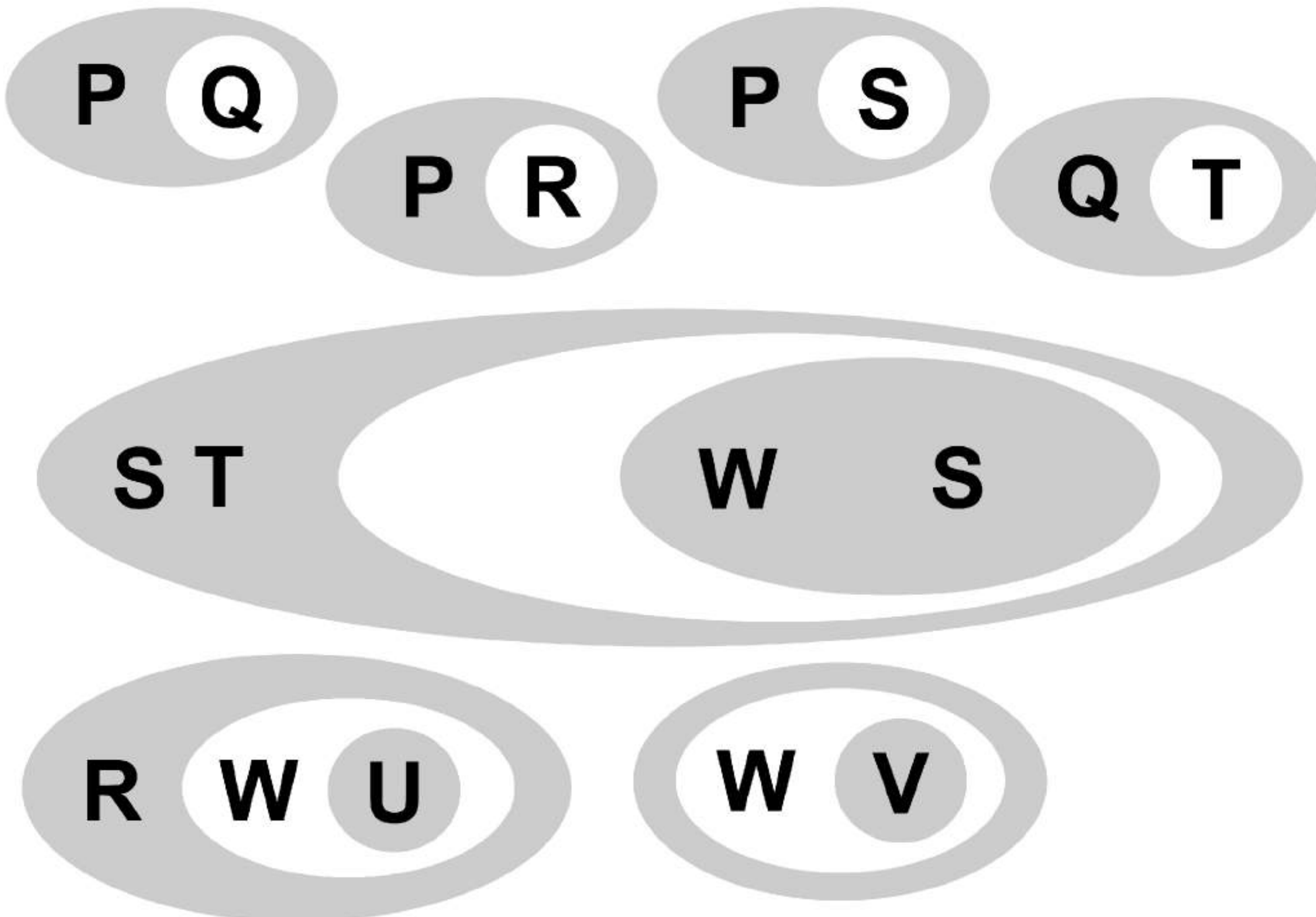

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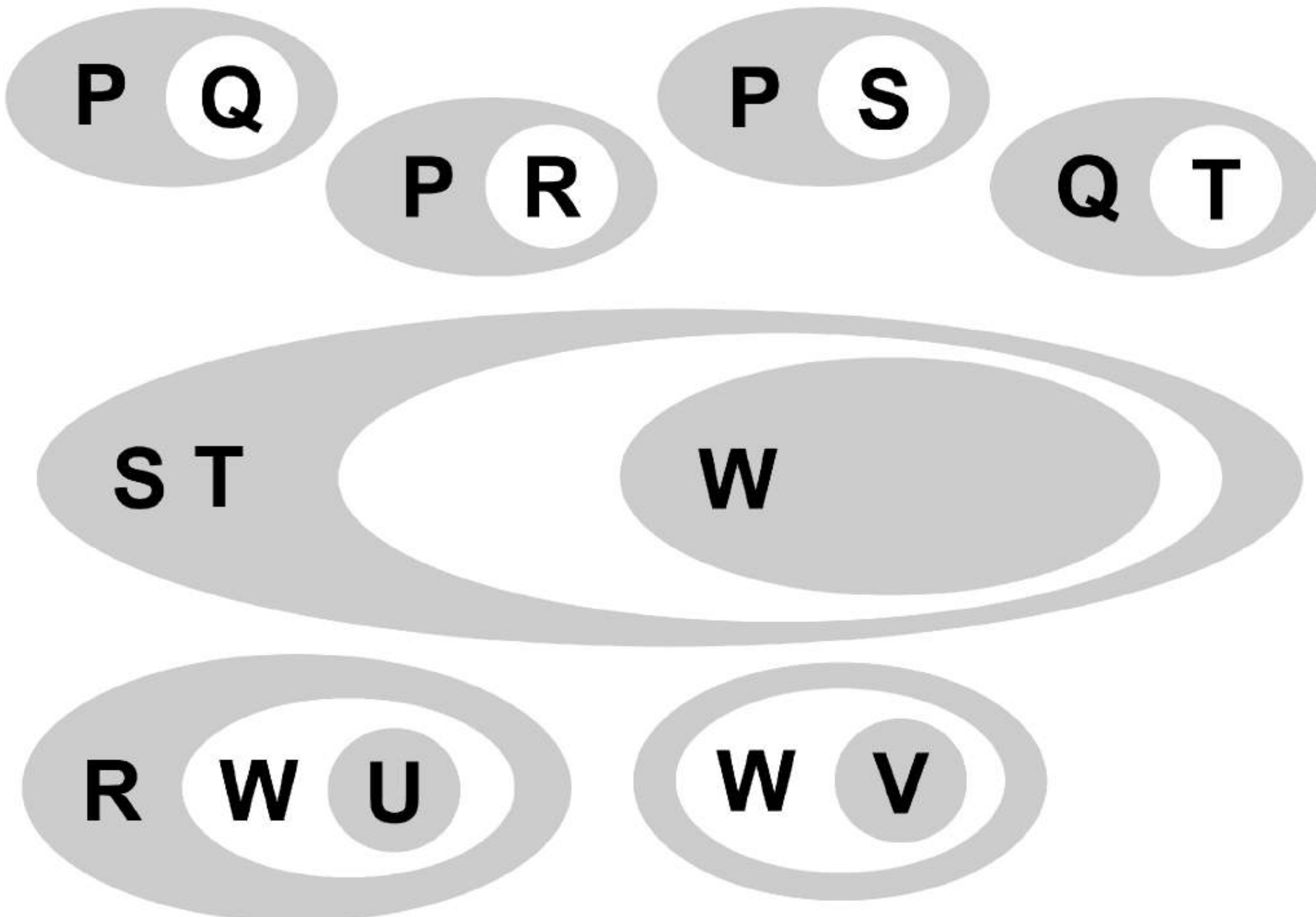

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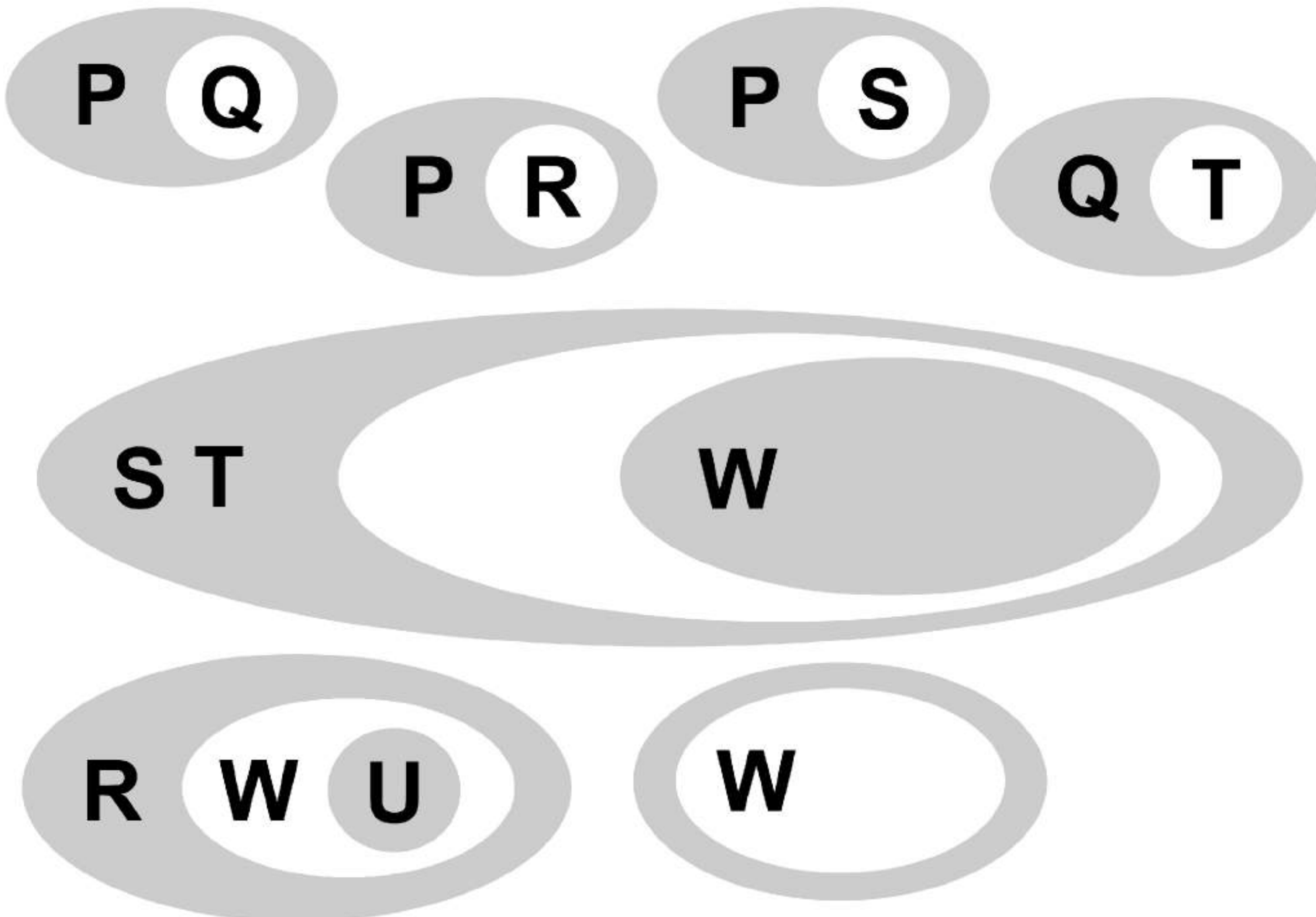
Extra Hand-out on Existential Graphs (direct)



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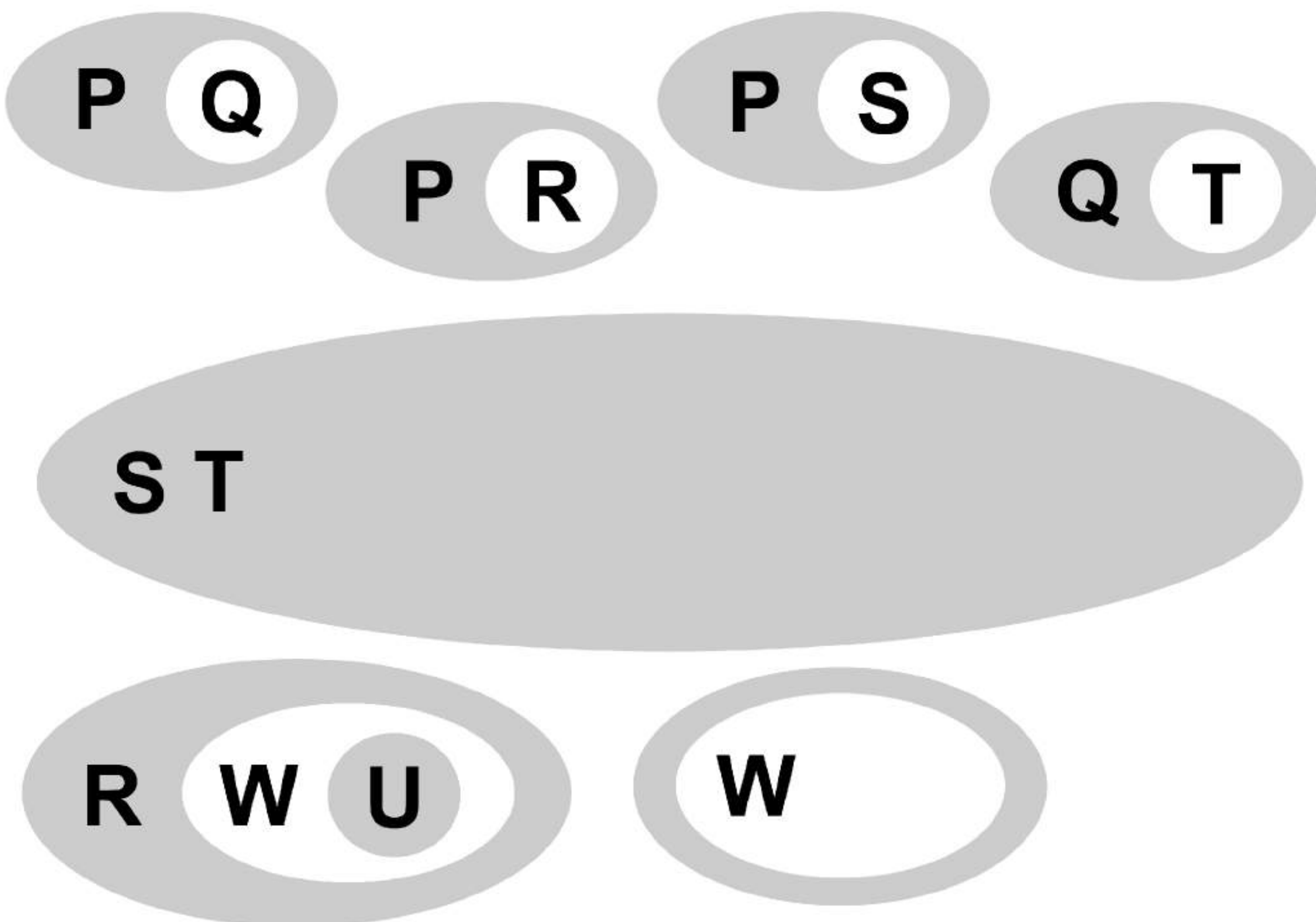

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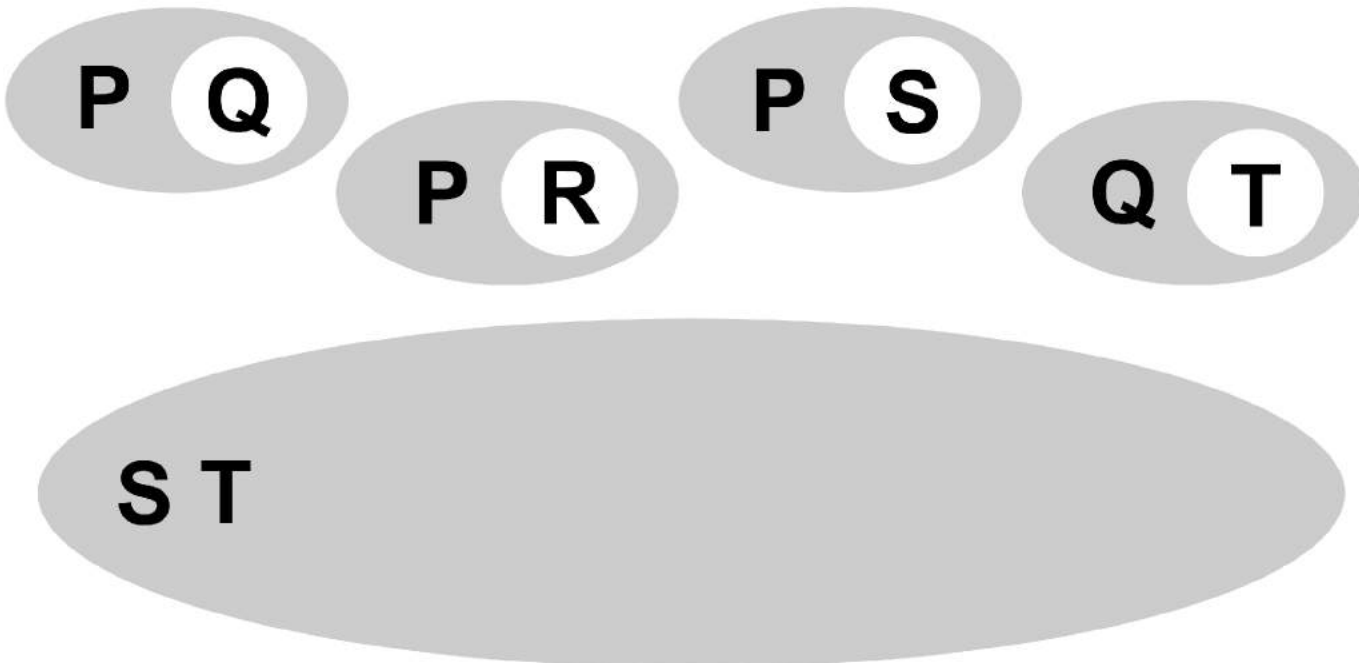

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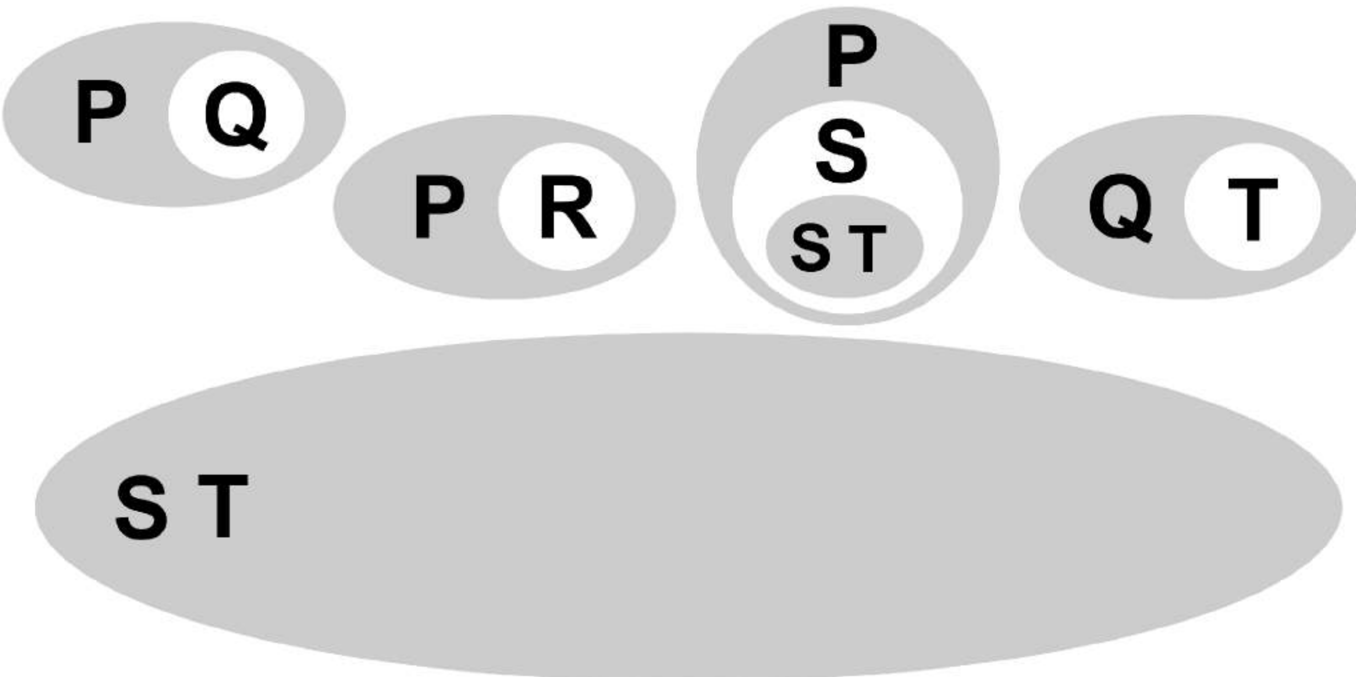

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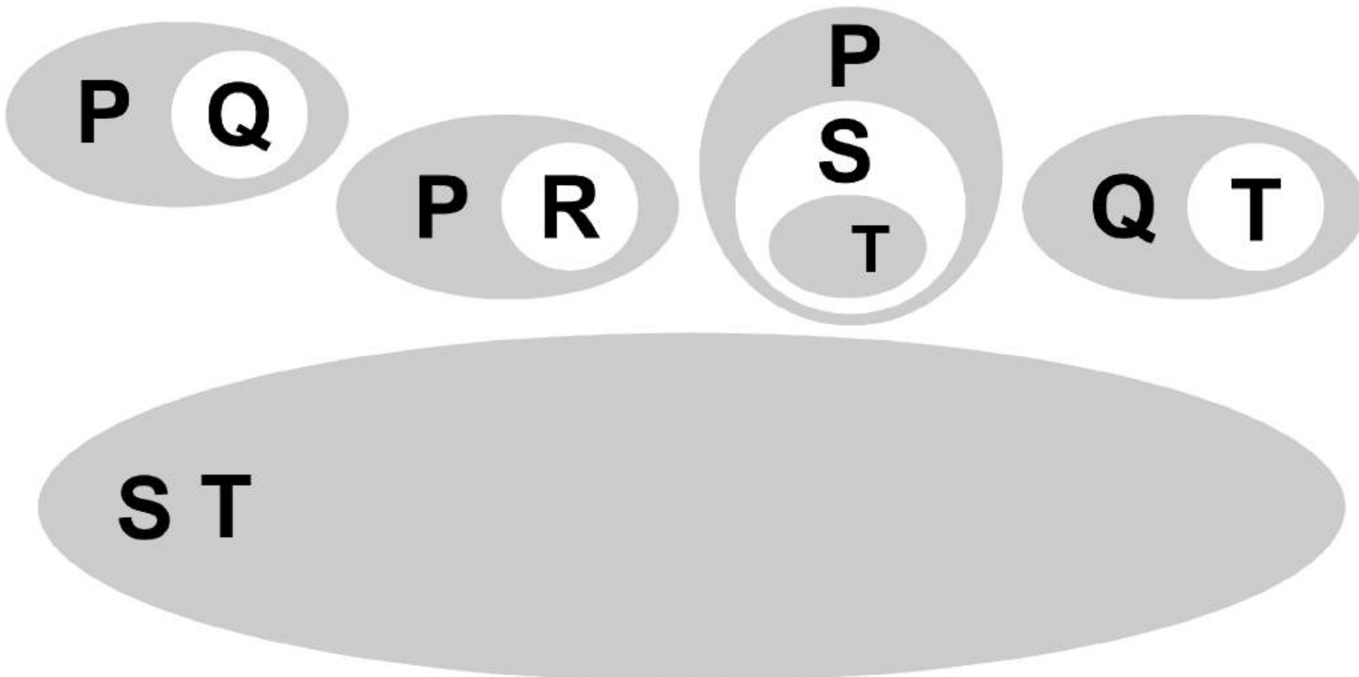

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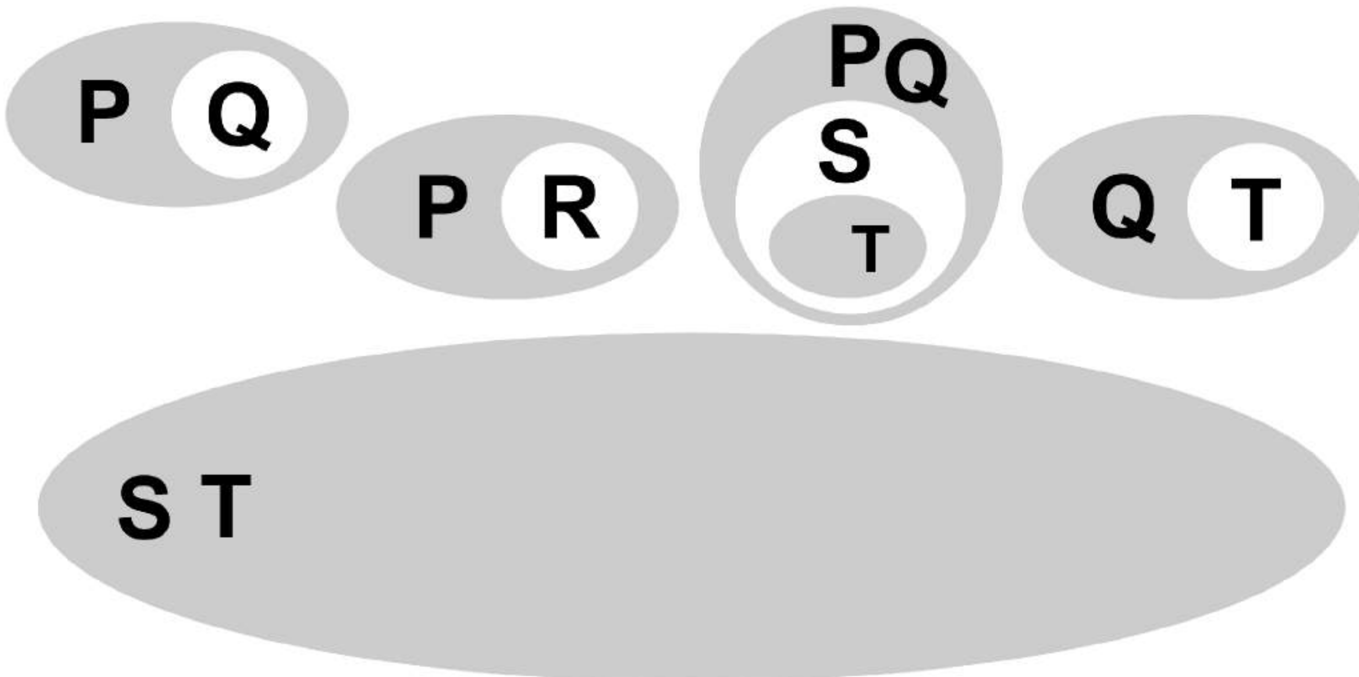

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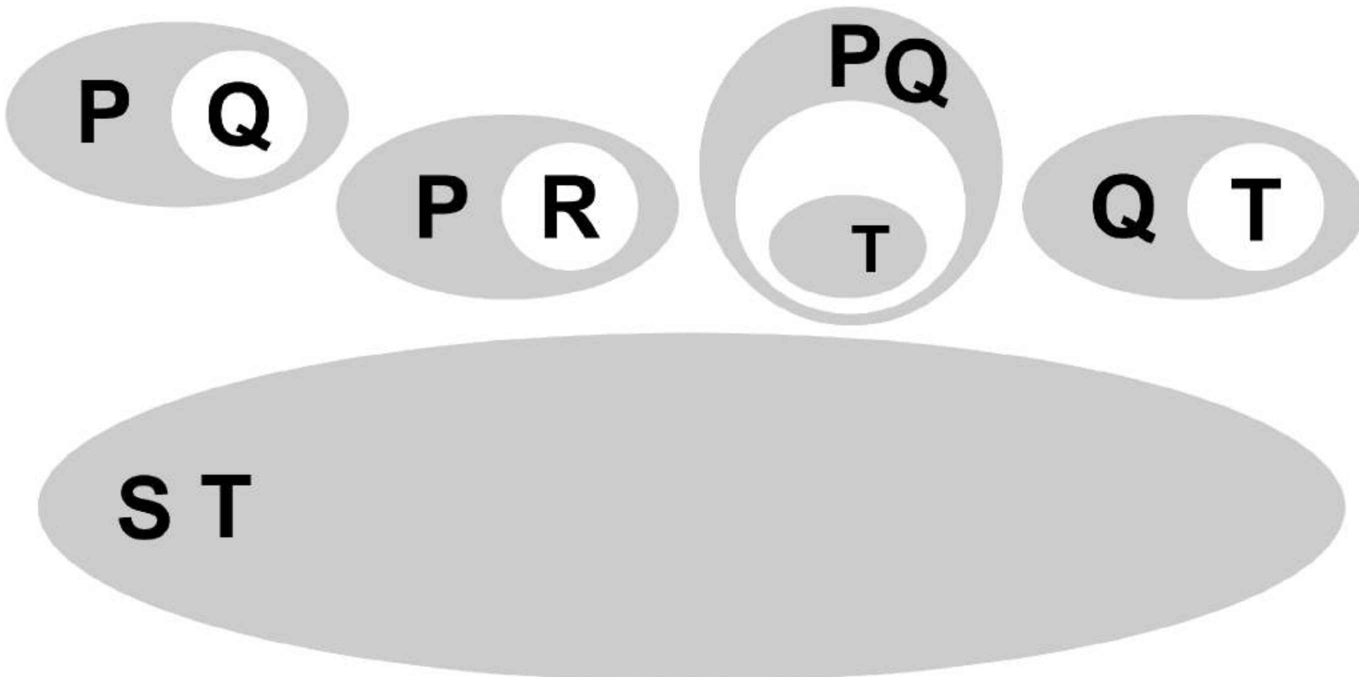

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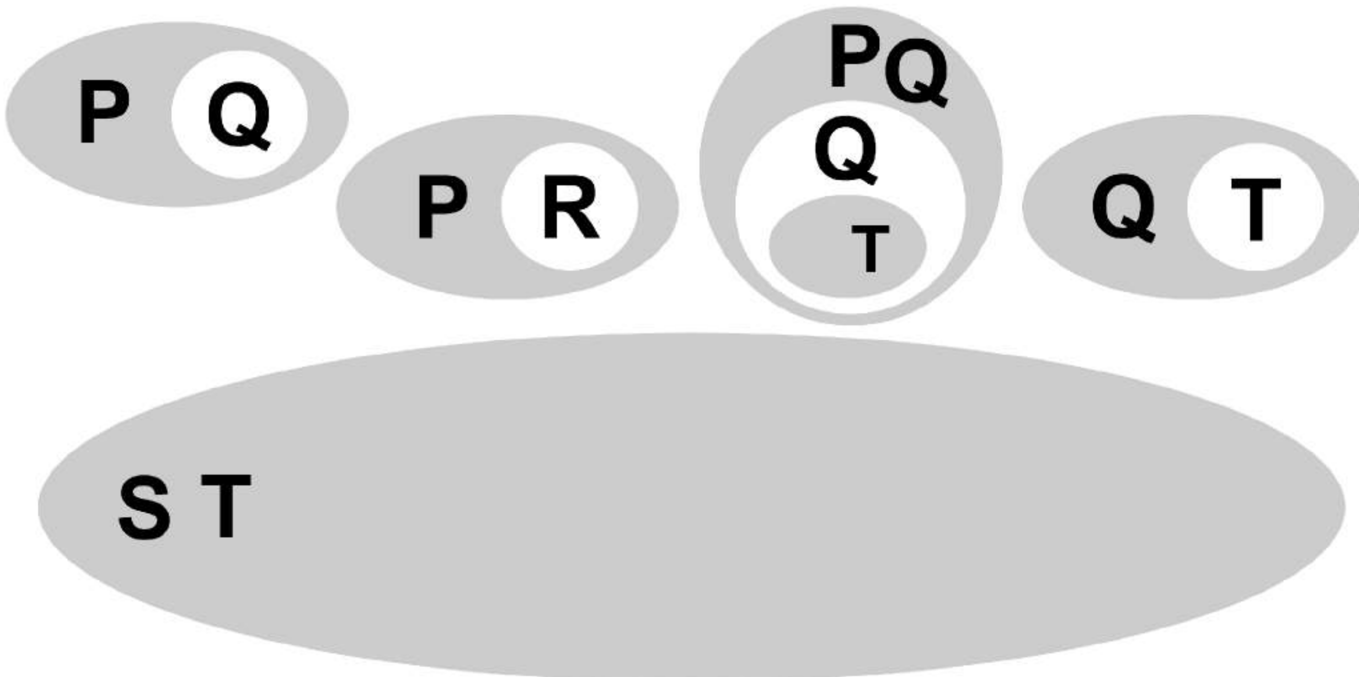

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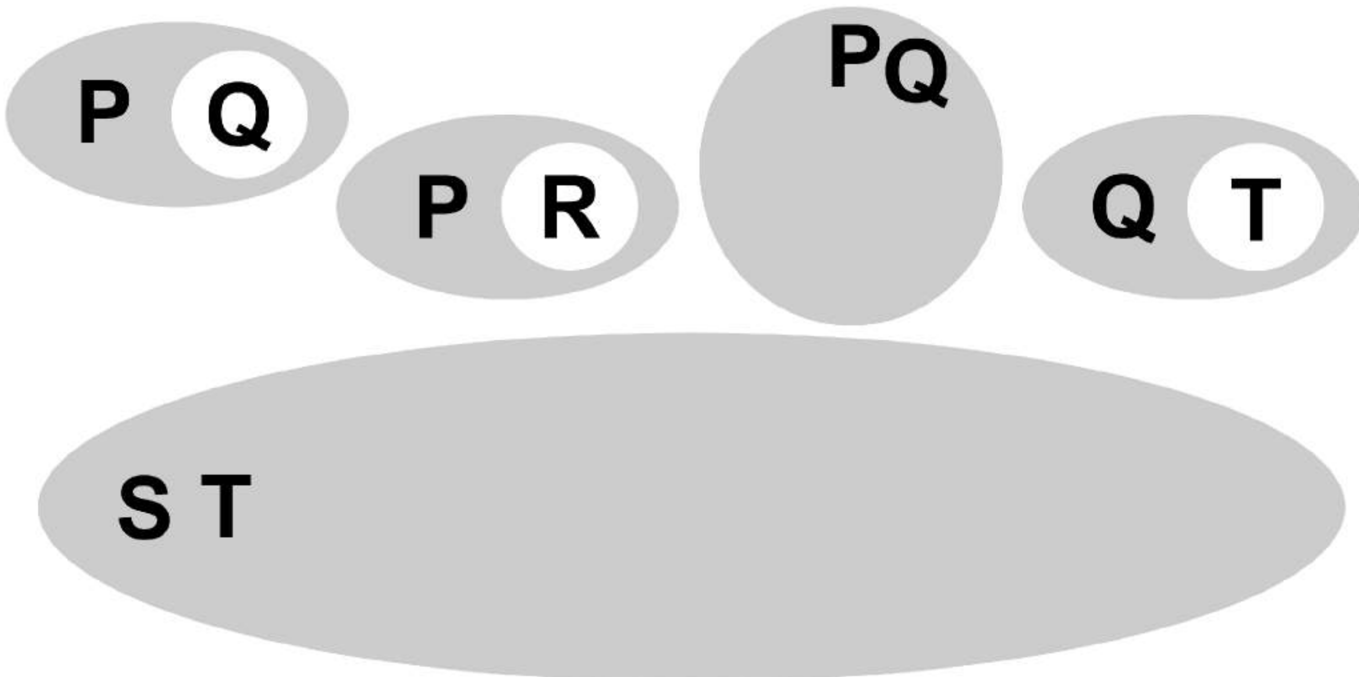

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Extra Hand-out on Existential Graphs (direct)

Iterate

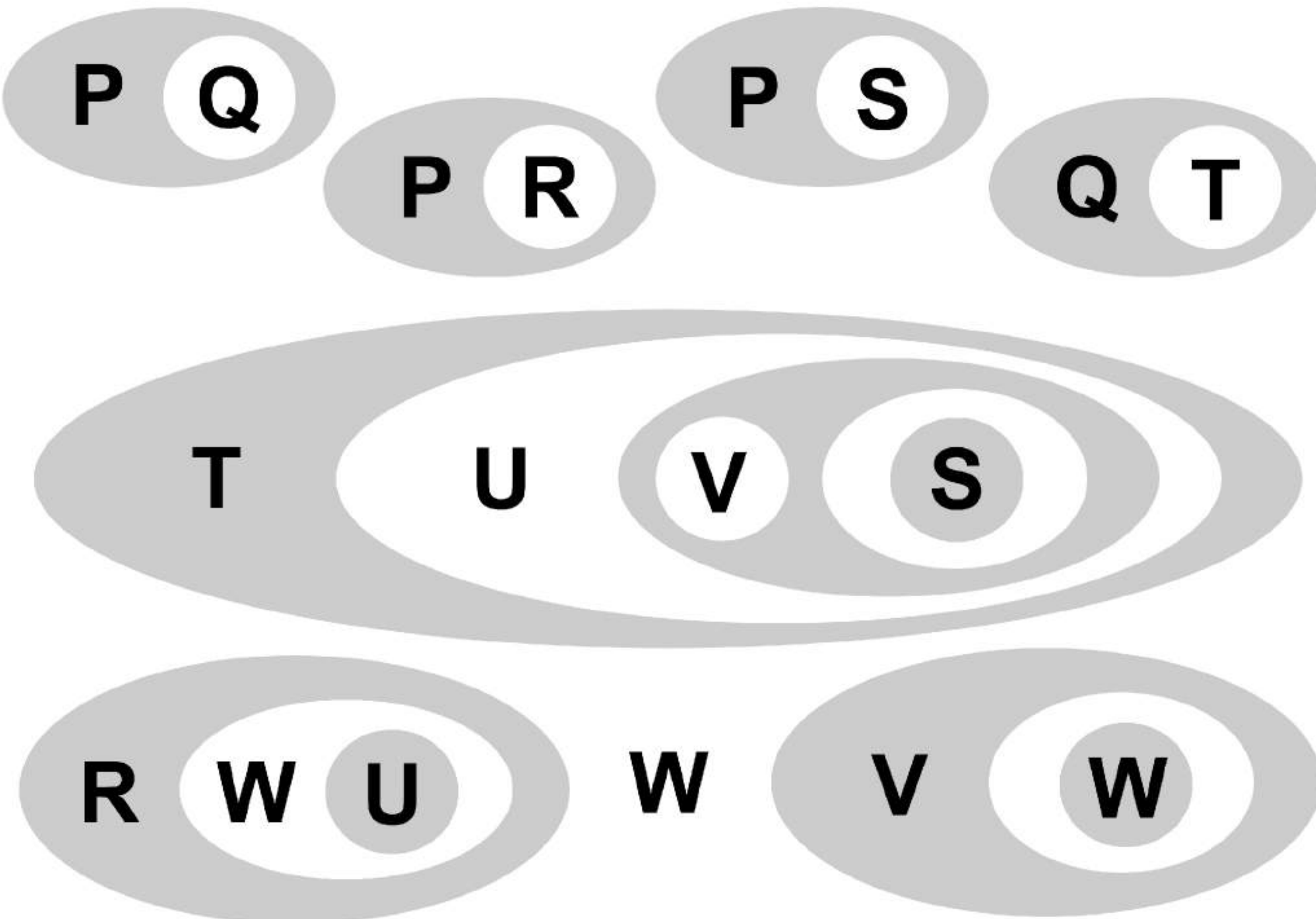
Deiterate

Extra Hand-out on Existential Graphs (direct)

Erase

Conclusion

Extra Hand-out on Existential Graphs (indirect)



Premises

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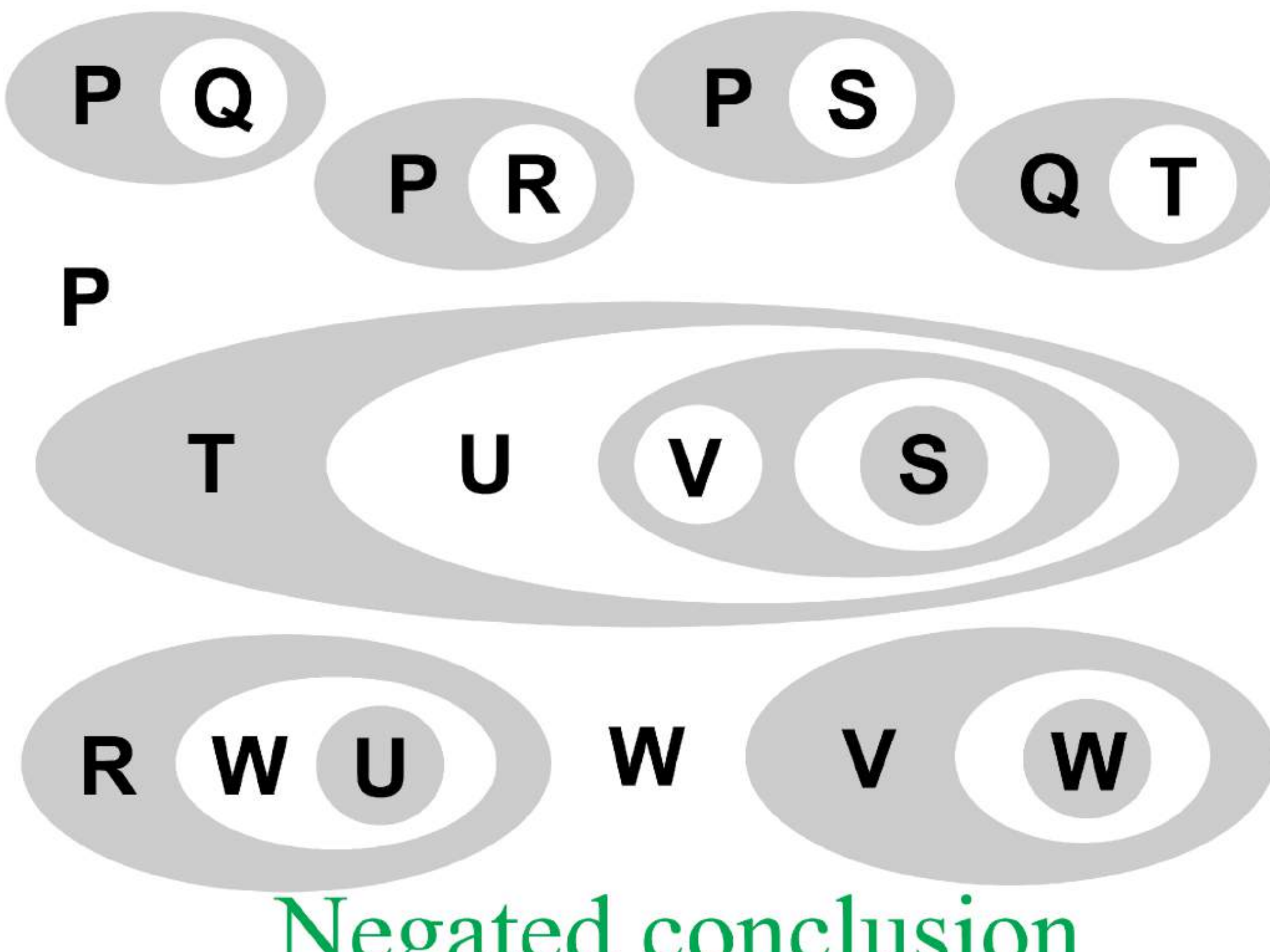
Extra Hand-out on Existential Graphs (indirect)



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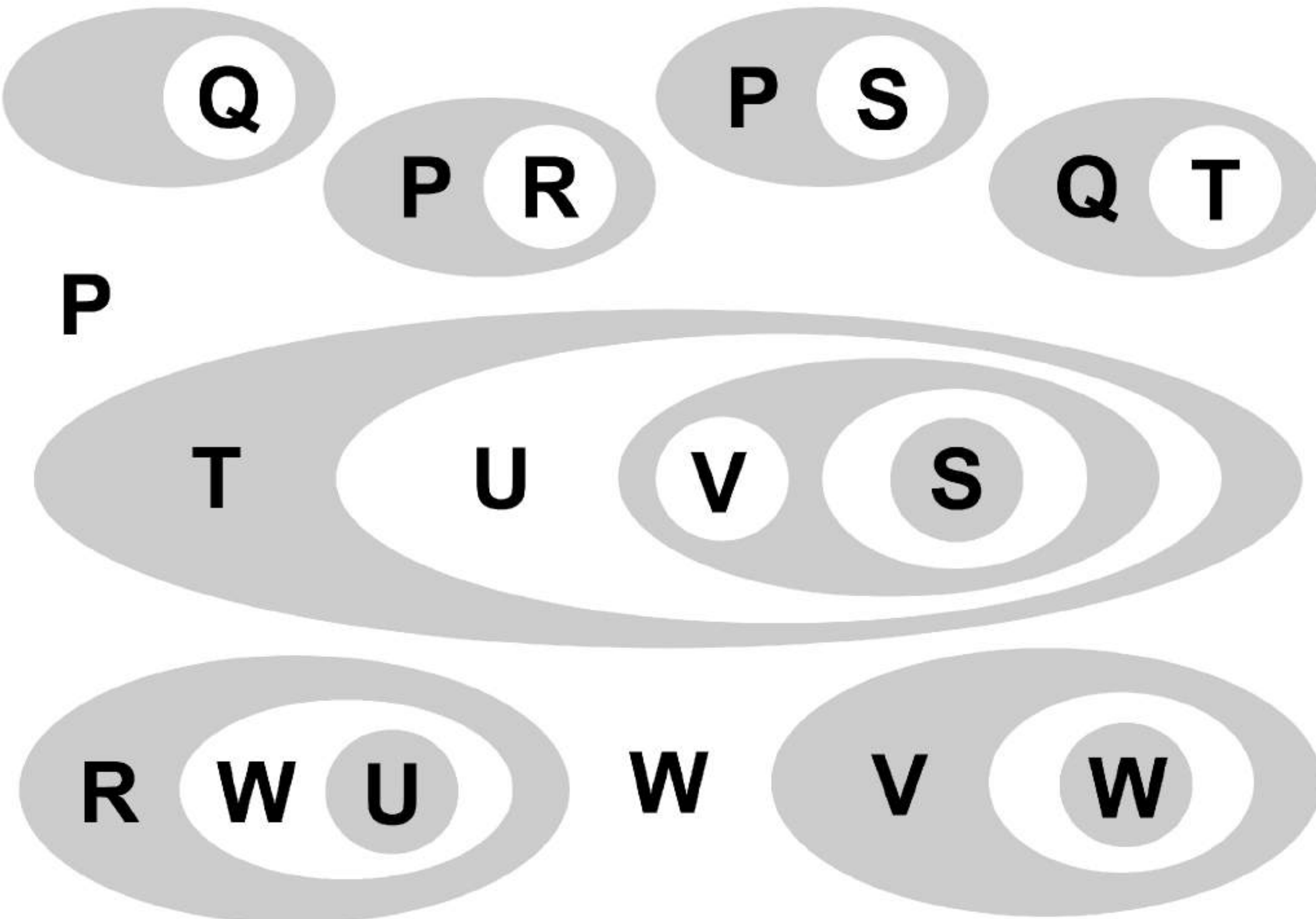
Extra Hand-out on Existential Graphs (indirect)



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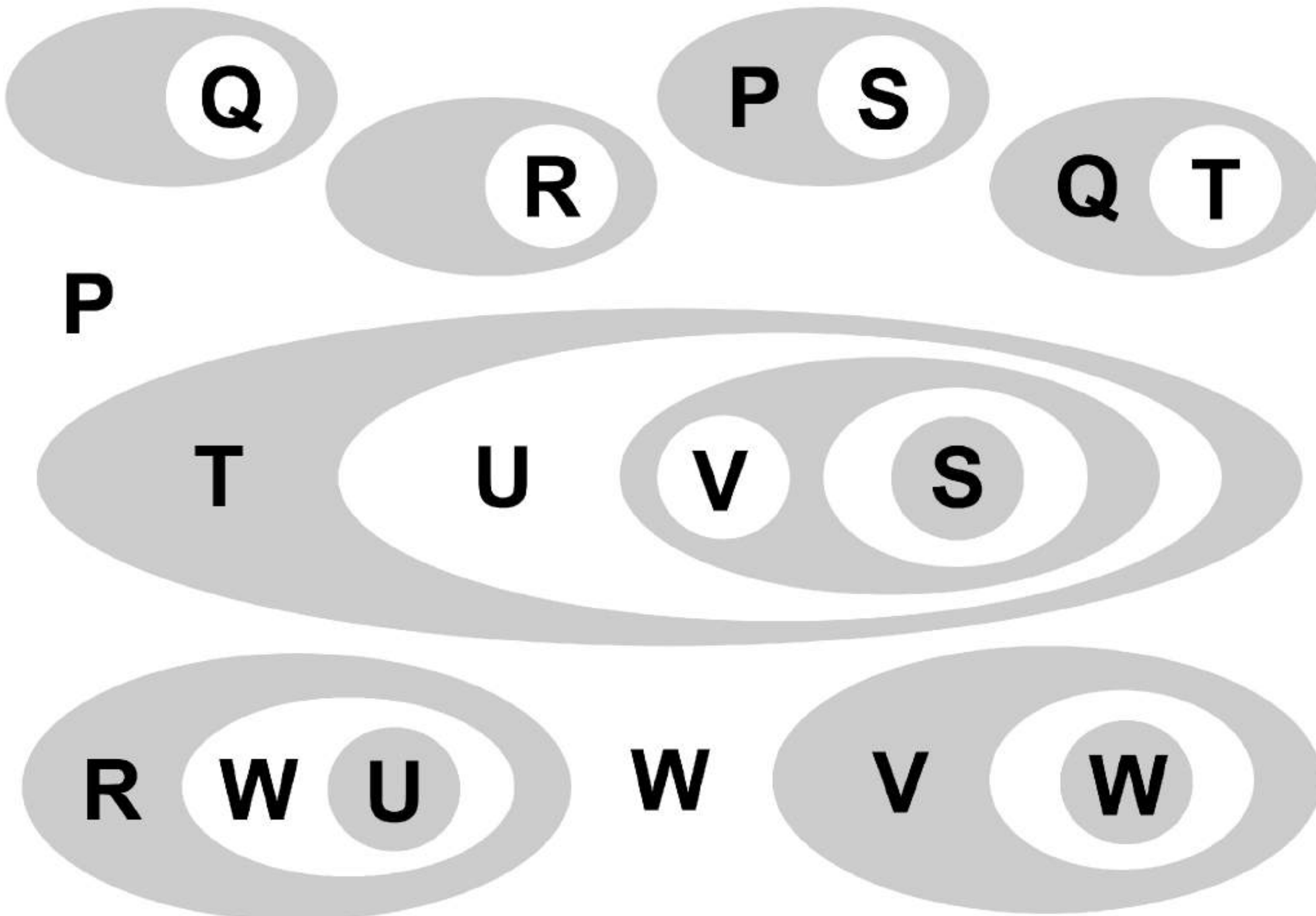

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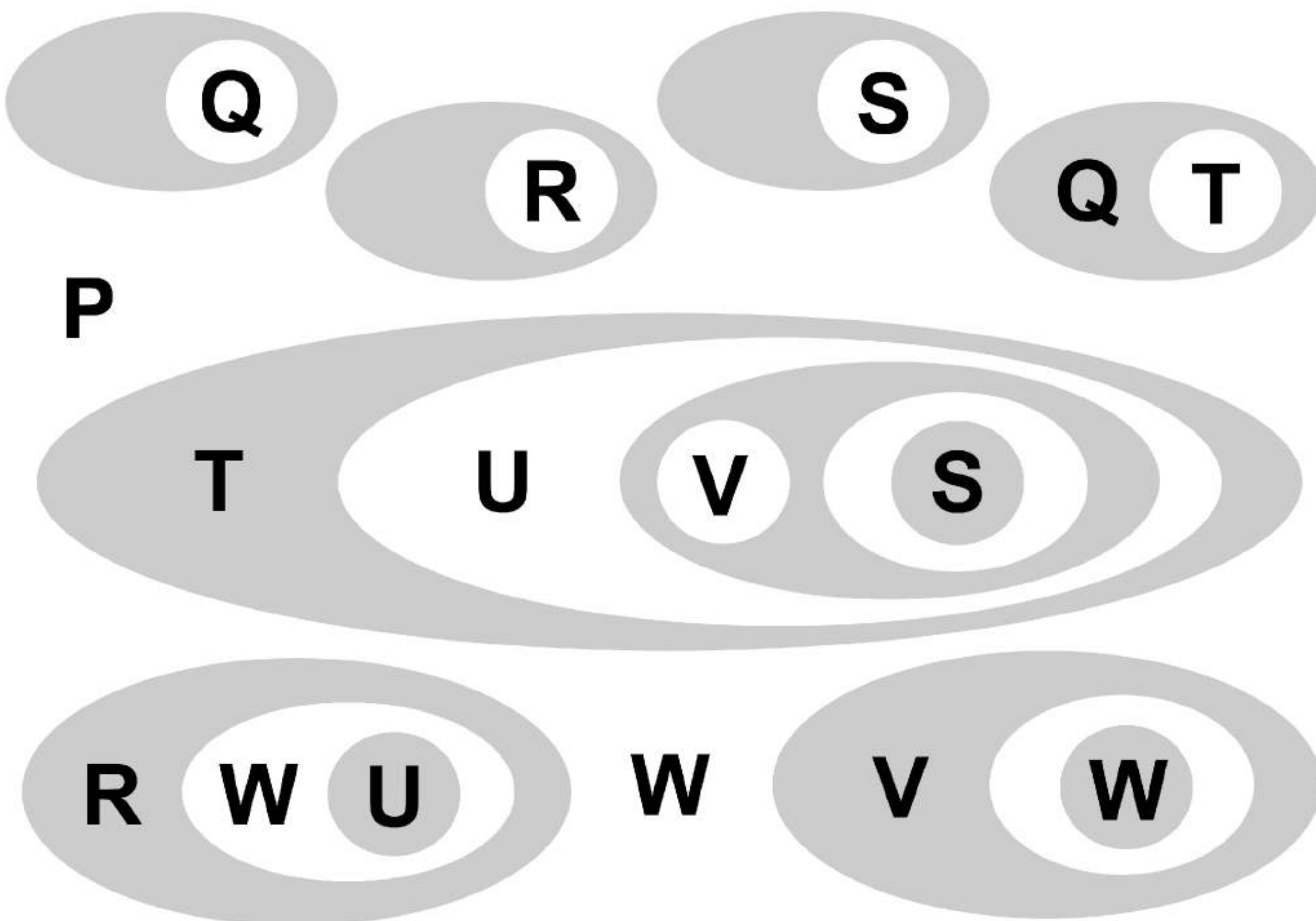

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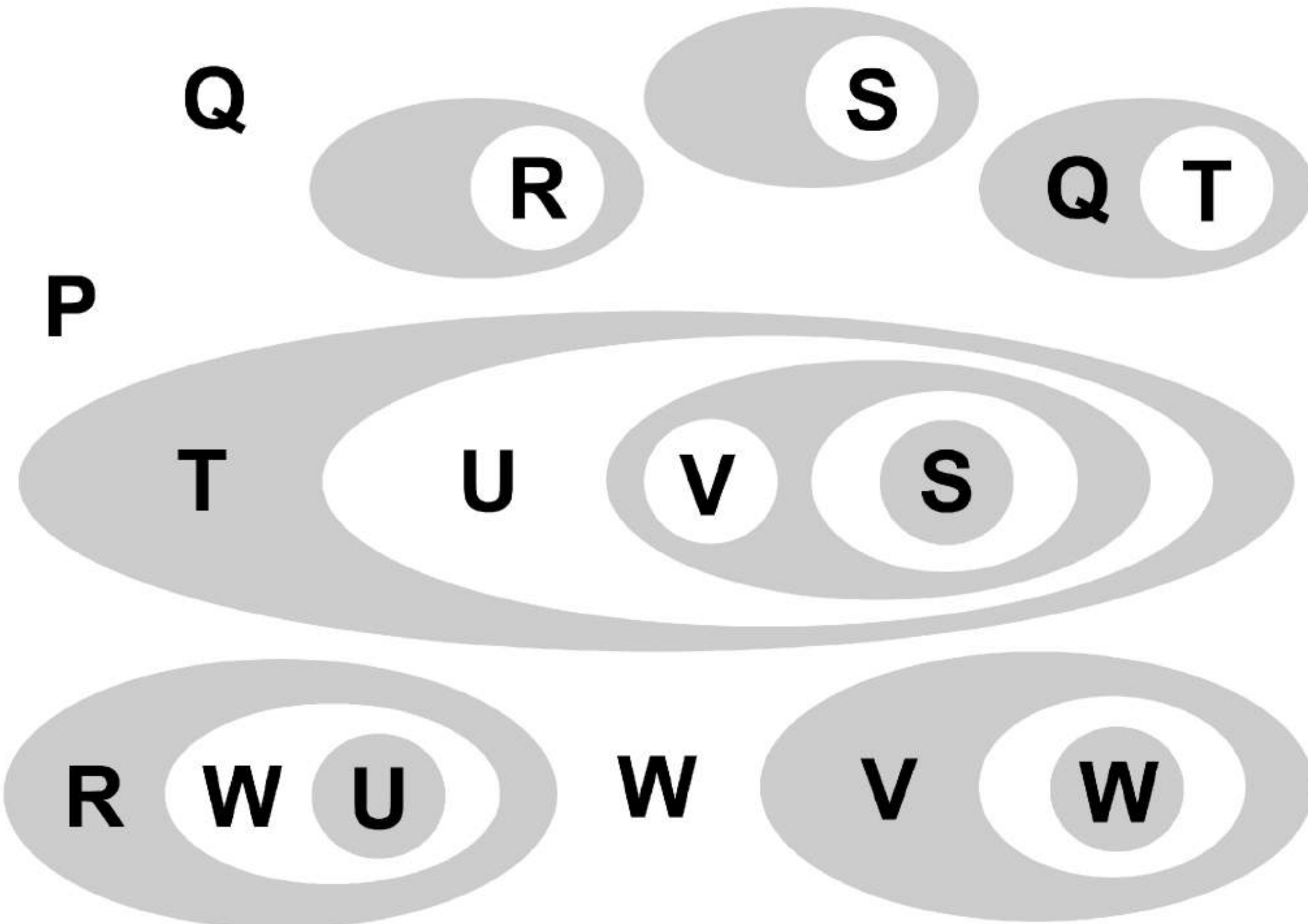

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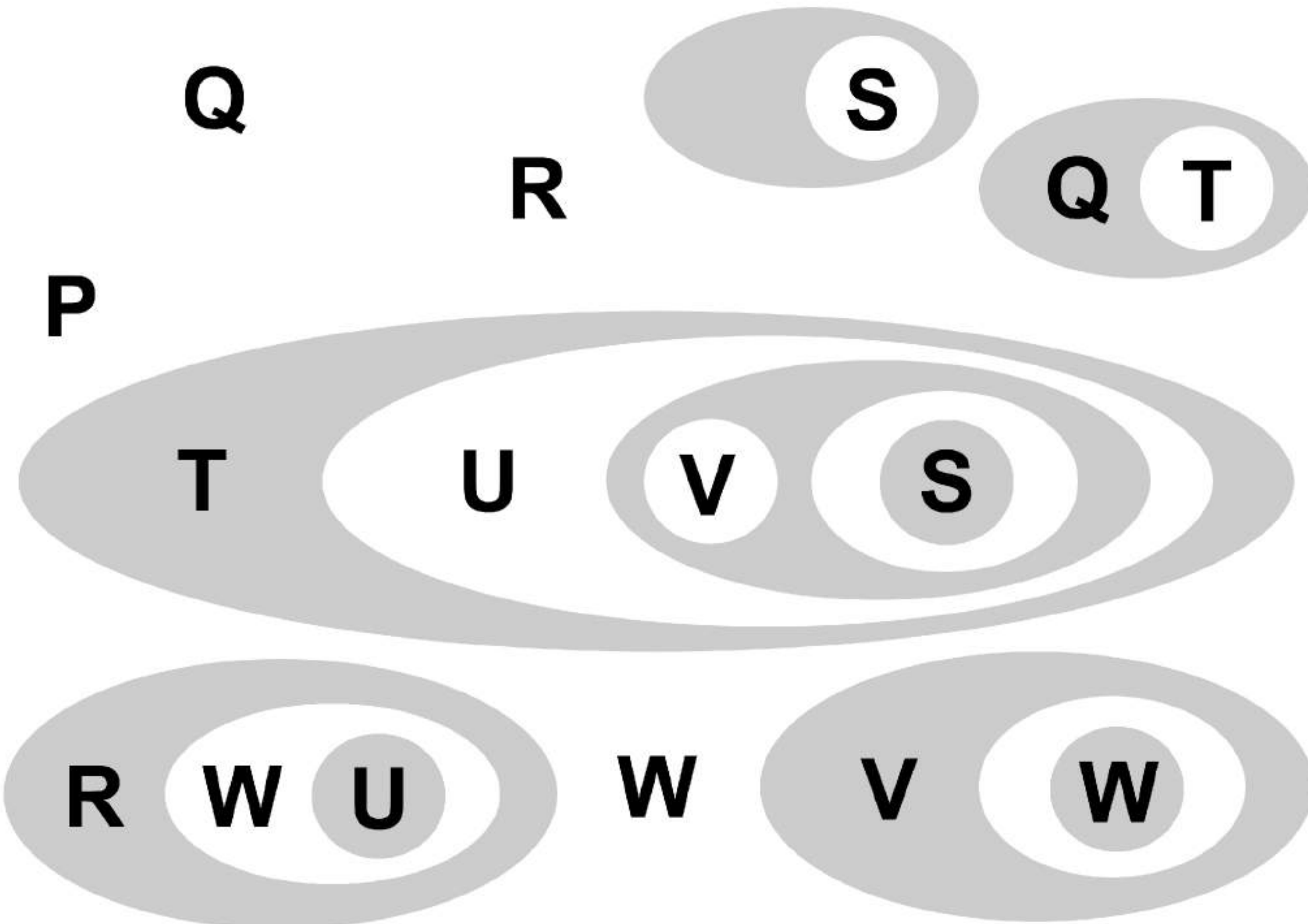
Extra Hand-out on Existential Graphs (indirect)



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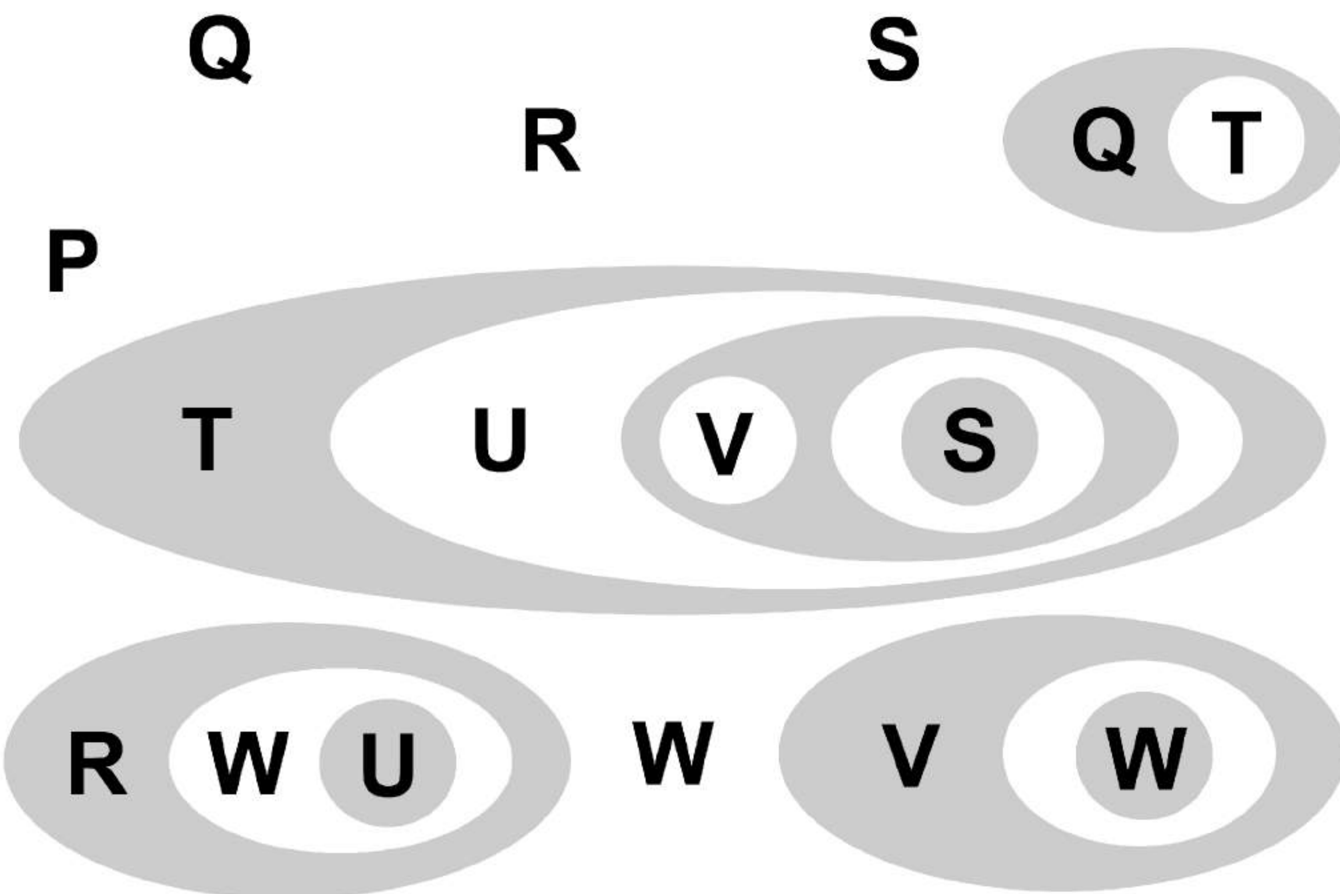

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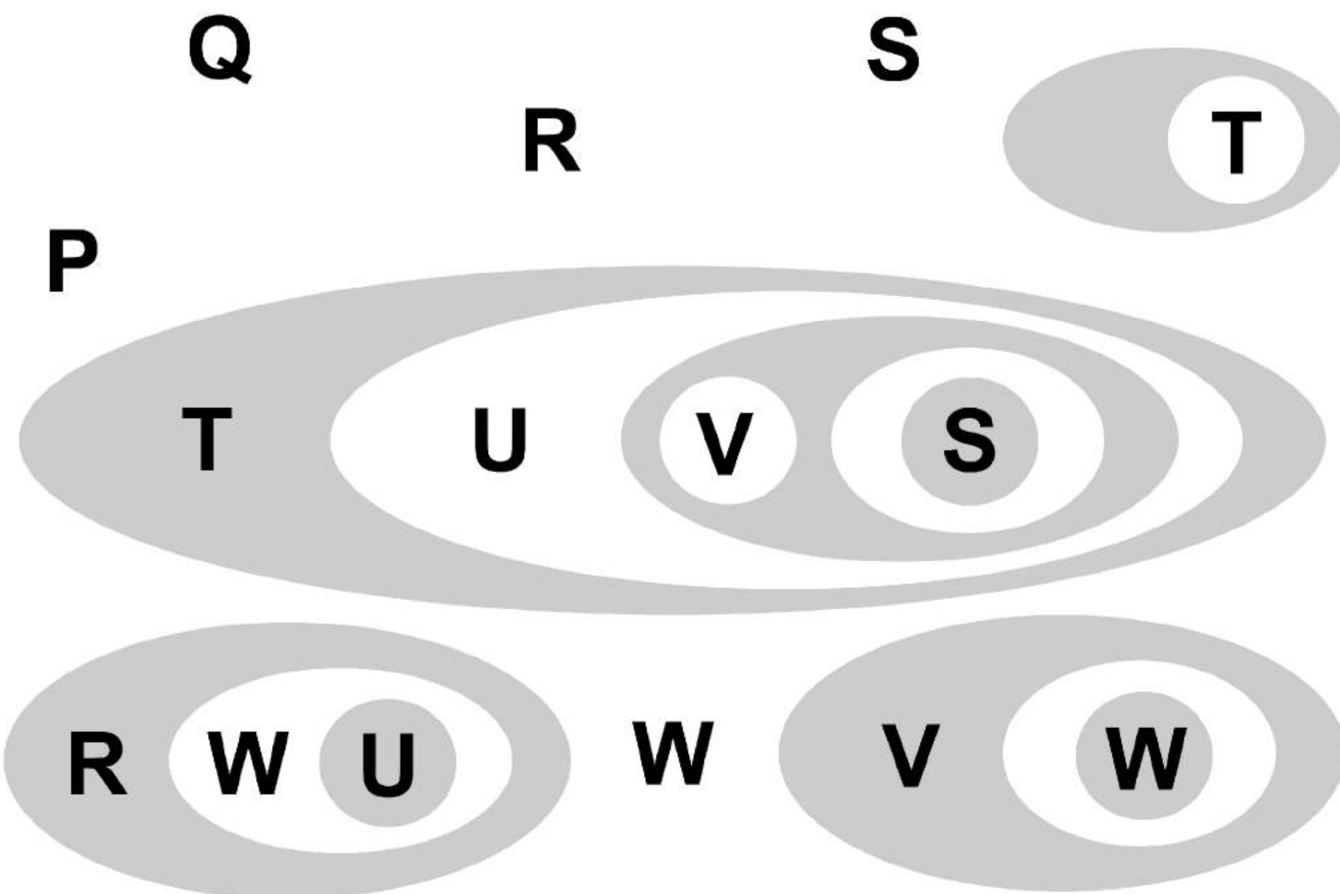

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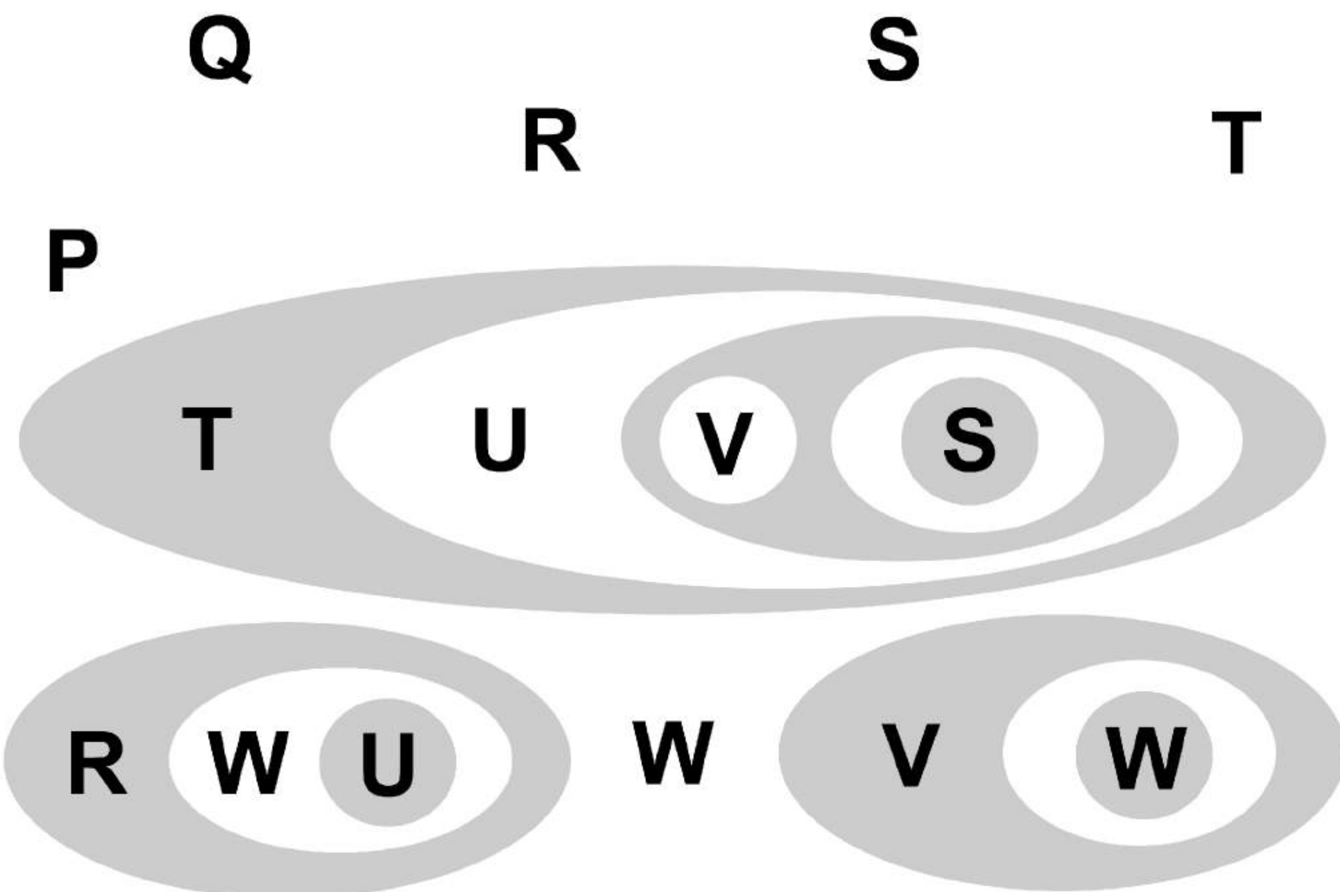

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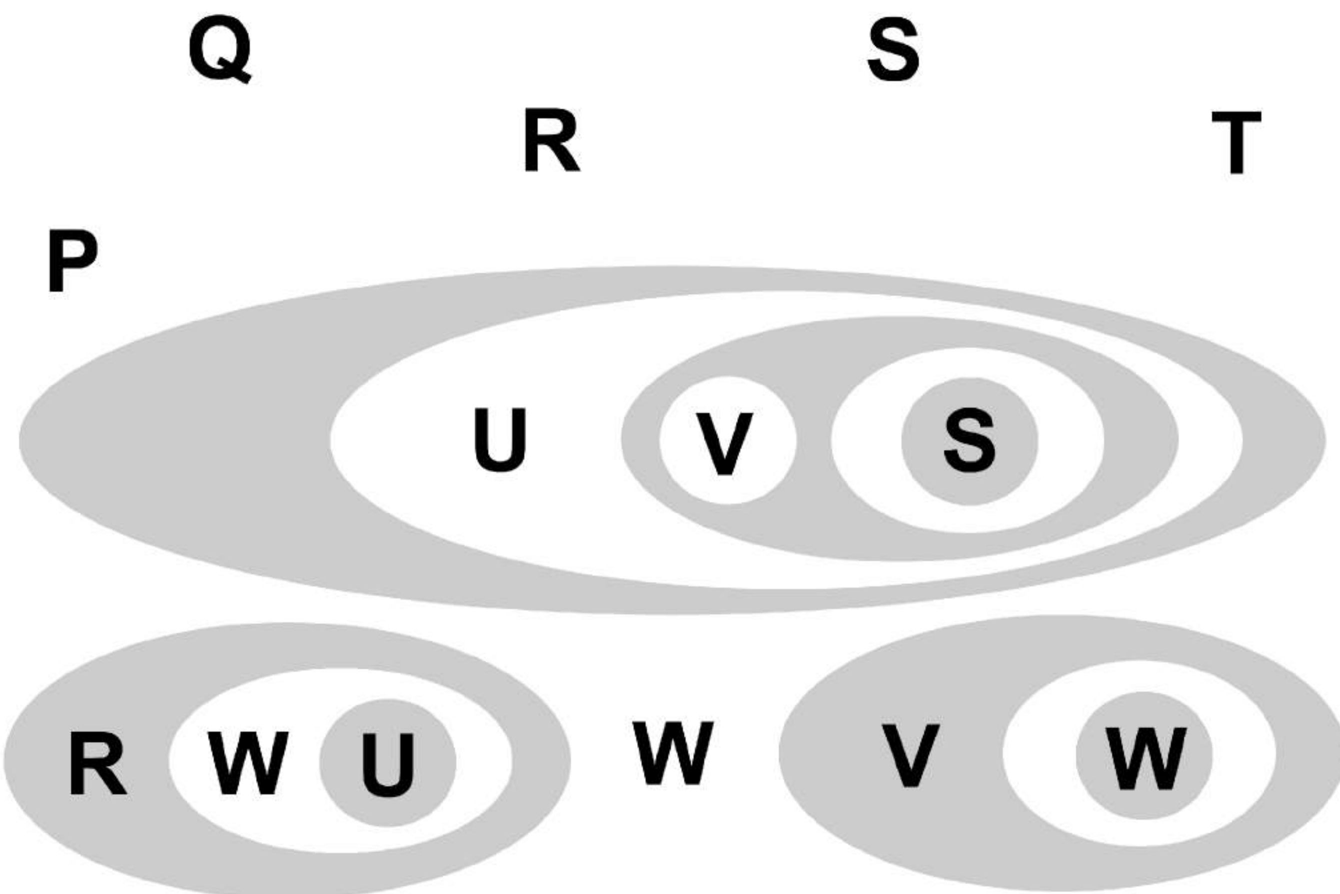

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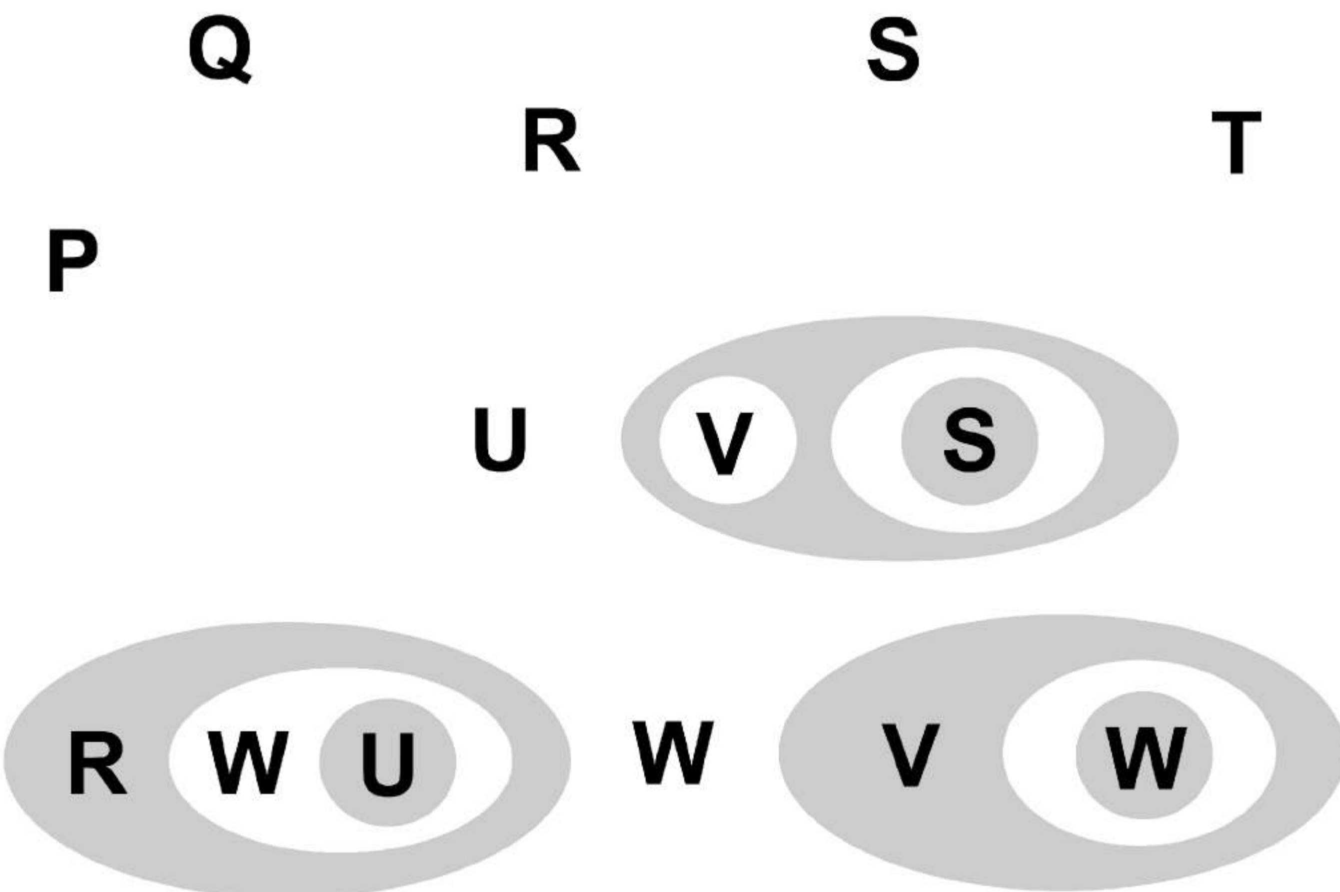

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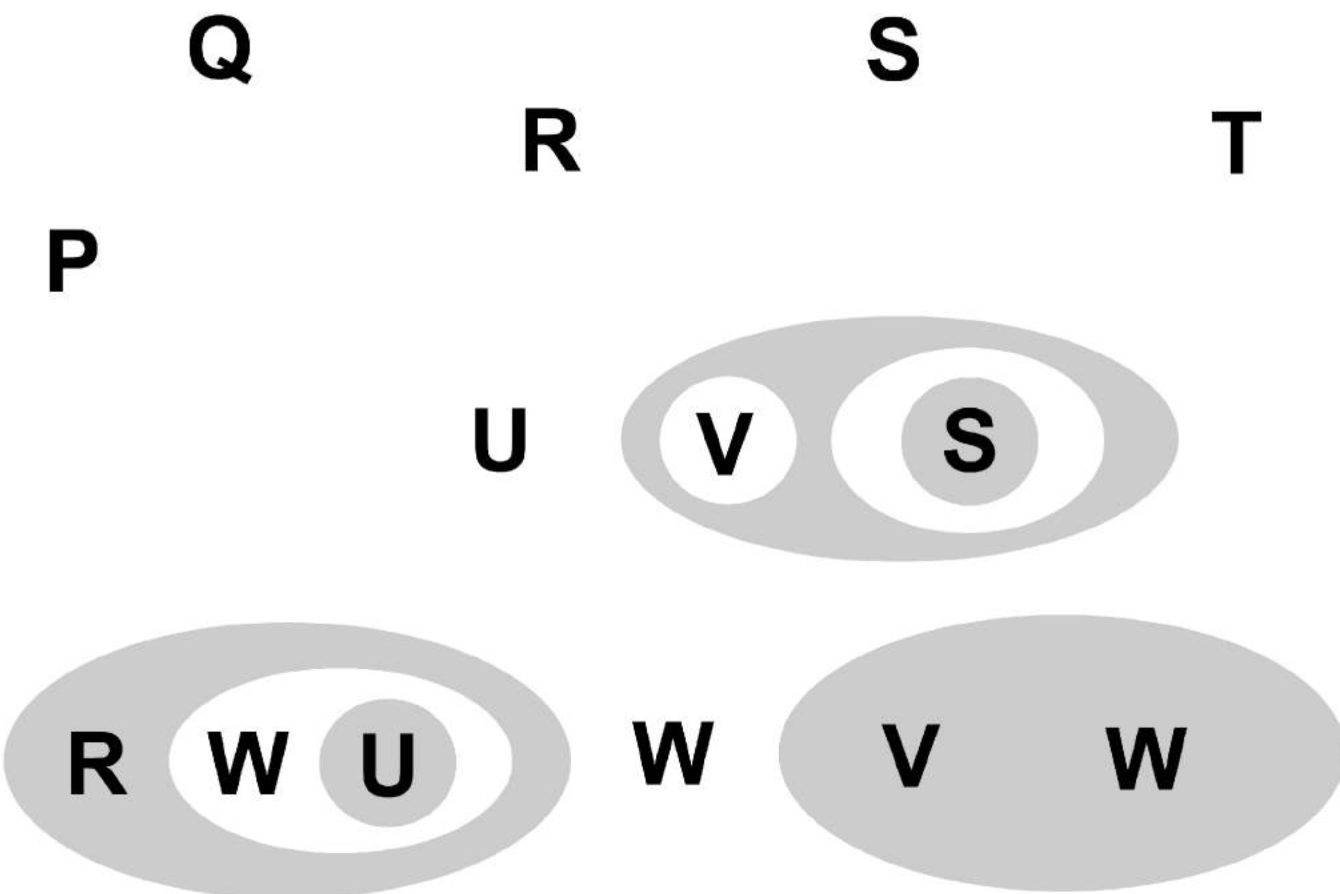
Extra Hand-out on Existential Graphs (indirect)



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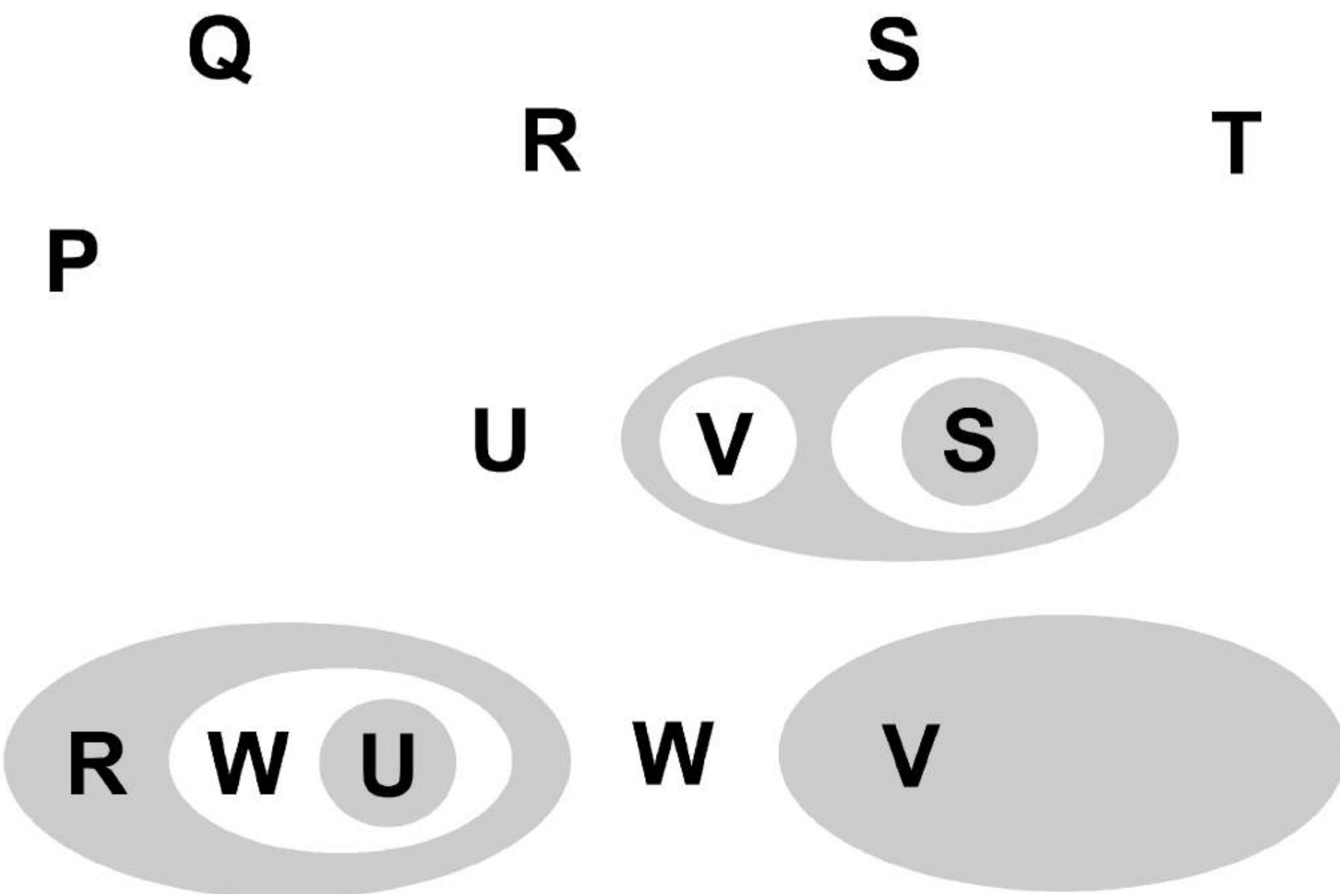
Extra Hand-out on Existential Graphs (indirect)



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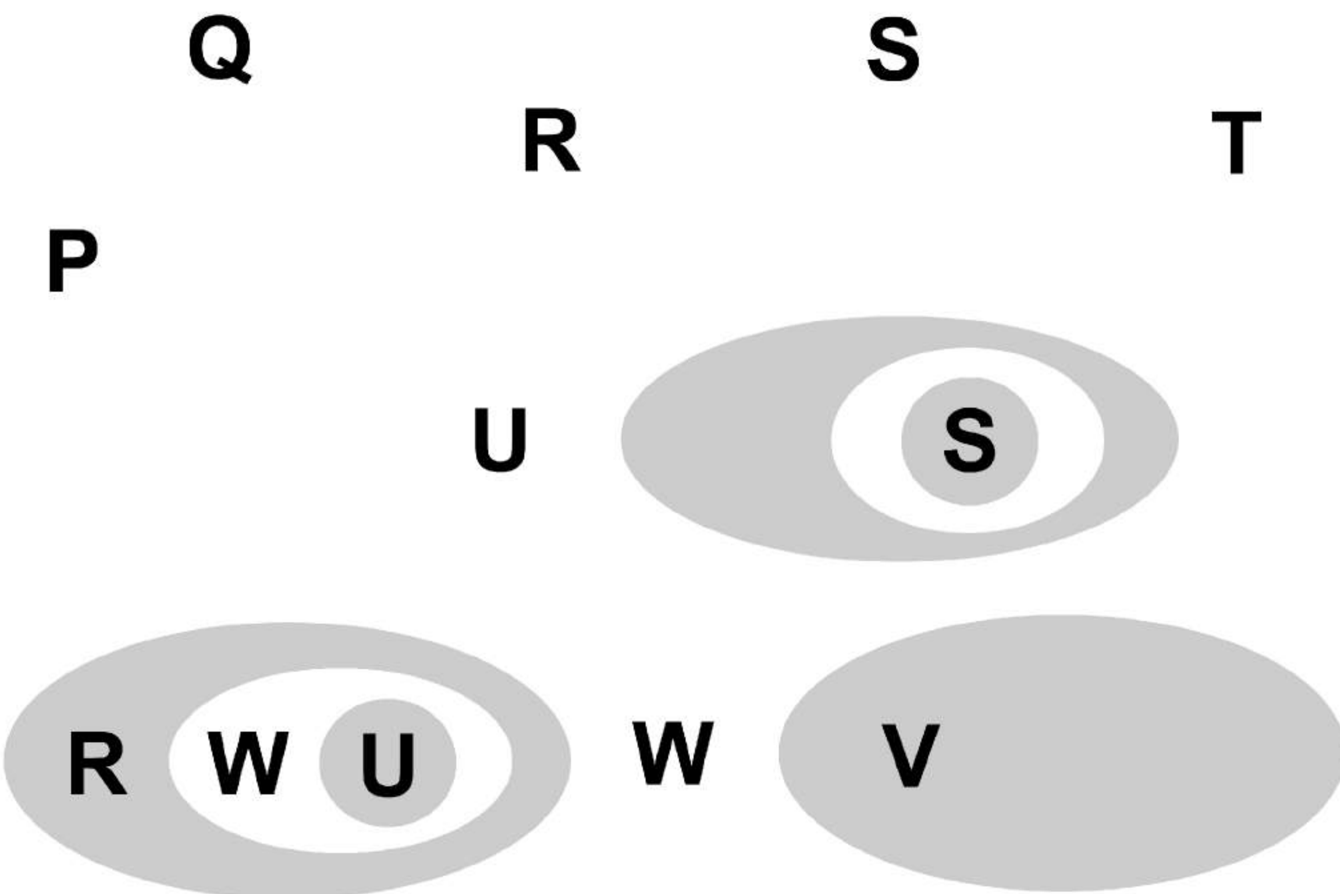
Extra Hand-out on Existential Graphs (indirect)



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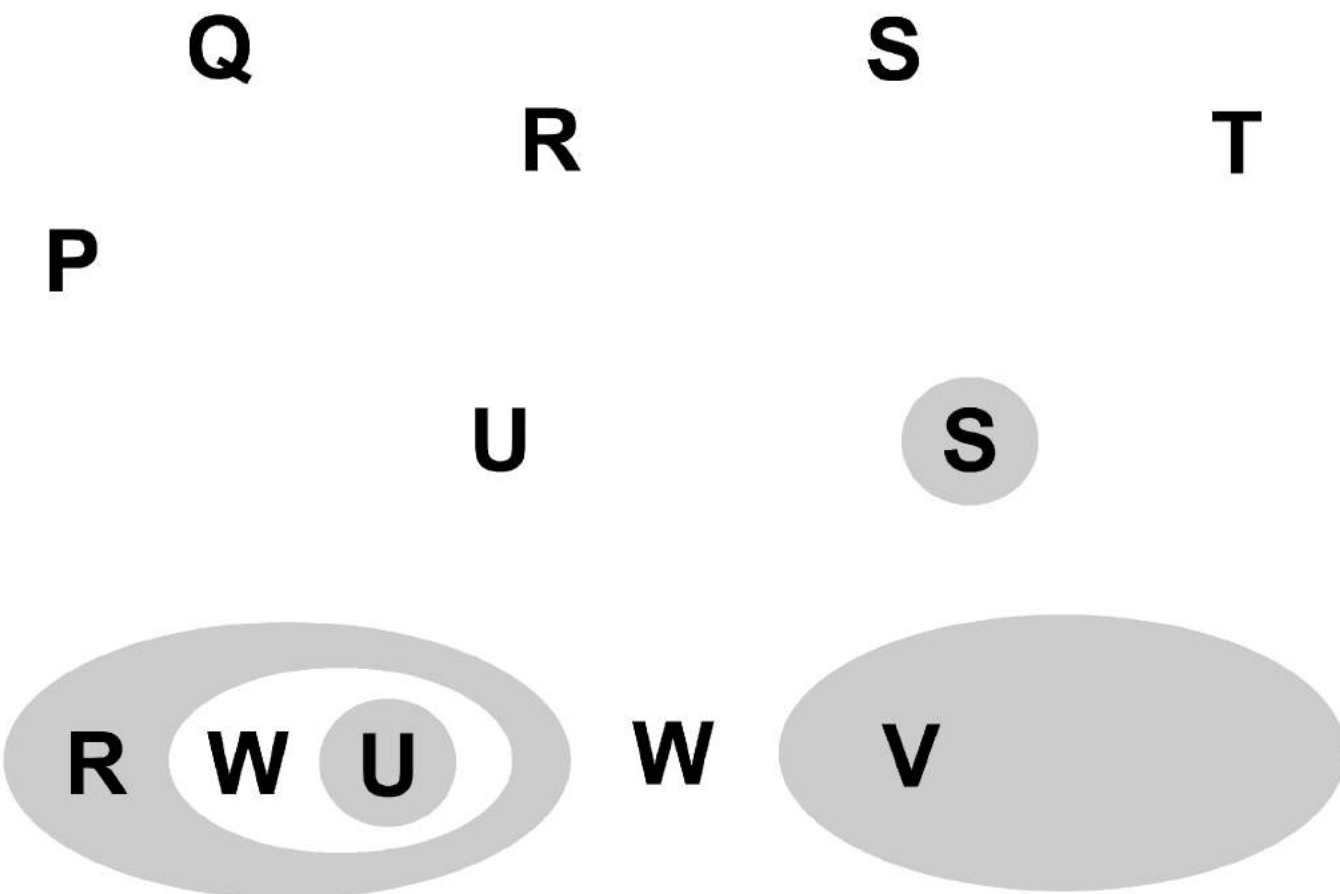

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Prepared by Dr. Marc Champagne for PHIL 1150

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Erase

Extra Hand-out on Existential Graphs (indirect)

Contrapiction

Prepared by Dr. Marc Champagne for PHIL 1150