

# 1 Propositional Logic Questions

List of questions and answers for propositional logic.

## 1.1 Propositional Logic - Causal Chains

“If A causes B. Does A cause B?”	
GPT-3	There is no definitive answer to this question as it depends on the specific situation. In some cases, A may cause B, while in others A may not have any direct impact on B.
Luminous A:	The answer is yes. <i>[continued]</i>
OPT	<i>[empty]</i>
“If A causes B and B causes C. Does A cause C?”	
GPT-3	It is possible that A causes C, but it is also possible that A and C are unrelated.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B and B causes C, then A causes C. If A causes B and B causes C, then A does not cause C. <i>[continued]</i>
“If A causes B, B causes C and C causes D. Does A cause D?”	
GPT-3	A causes D.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B, B causes C and C causes D. Does A cause D? If A causes B, B causes C and C causes D. Does A cause D? <i>[repeating]</i>

“If A causes B, B causes C, C causes D and D causes E. Does A cause E?”	
GPT-3	A causes E.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B, B causes C, C causes D and D causes E. Does A cause E? If A causes B, B causes C, C causes D and D causes E. Does A cause E <i>[repeating]</i>
“If A causes B, B causes C, C causes D, D causes E, E causes F. Does A cause F?”	
GPT-3	A does not necessarily cause F.
Luminous A:	The answer is yes. <i>[continued]</i>
OPT	If A causes B, B causes C, C causes D, D causes E, E causes F, then A causes F. If A causes B, B causes C, C causes D, <i>[repeating]</i>
“If A causes B, B causes C, C causes D, D causes E, E causes F, F causes G. Does A cause G?”	
GPT-3	A does not necessarily cause G.
Luminous A:	The answer is yes. <i>[continued]</i>
OPT	The answer is no. The reason is that the causal chain is not closed. <i>[continued]</i>
“If A causes B, B causes C, C causes D, D causes E, E causes F, F causes G, G causes H. Does A cause H?”	
GPT-3	A causes H.
Luminous A:	The answer is yes. <i>[continued]</i>
OPT	The answer is no. The reason is that the causal chain is not closed. <i>[continued]</i>

“If A causes B, B causes C, C causes D, D causes E, E causes F, F causes G, G causes H, H causes I. Does A cause I?”	
GPT-3	A does not necessarily cause I, although it is a possibility.
Luminous A:	The answer is yes. <i>[continued]</i>
OPT	The answer is no. The reason is that the causal chain is not closed. <i>[continued]</i>
“If A causes B, B causes C, C causes D, D causes E, E causes F, F causes G, G causes H, H causes I, I causes J. Does A cause J?”	
GPT-3	A causes J.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	The answer is no. The reason is that the causal chain is not closed. <i>[continued]</i>

## 1.2 Propositional Logic - Sub chains

“If A causes B and B causes C. Does A cause B?”	
GPT-3	There is not enough information to answer this question.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B and B causes C, then A causes C. If A causes B and B does not cause C, then A does not cause C. <i>[repeating]</i>
“If A causes B and B causes C. Does B cause C?”	
GPT-3	Yes, B causes C.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B and B causes C, then A causes C. If A causes B and B causes C, then A does not cause C. <i>[continued]</i>

“If A causes B, B causes C, C causes D, D causes E, E causes F. Does B cause E?”	
GPT-3	There is no definitive answer to this question as the relationship between B and E could be indirect.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B, B causes C, C causes D, D causes E, E causes F. Does B cause E? - <i>[continued]</i>
“If A causes B, B causes C, C causes D, D causes E, E causes F. Does E cause B?”	
GPT-3	There is no definitive answer to this question as it depends on the specific circumstances of the situation. However, it is possible that E could cause B if, for example, E is a necessary component for the functioning of B.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B, B causes C, C causes D, D causes E, E causes F. Does E cause B? If A causes B, B causes C, C causes D, <i>[repeating]</i>

### 1.3 Propositional Logic - Randomized Variable

“If A causes B and B causes C. Does A cause A?”	
GPT-3	A does not cause A.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B and B causes C, then A causes C. If A causes B and B causes C, then A does not cause C. <i>[continued]</i>

“If A causes B and B causes C. Does B cause A?”	
GPT-3	There is no definitive answer to this question as it depends on the specific situation. In some cases, B may cause A, while in others A may cause B.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B and B causes C, then A causes C. If A causes B and B causes C, then A does not cause C. <i>[continued]</i>
“If A causes B and B causes C. Does C cause A?”	
GPT-3	There is no definitive answer to this question as it depends on the specific situation. In some cases, it may be true that C causes A, while in other cases it may not be true.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B and B causes C, then A causes C. If A causes B and B causes C, then B causes C. <i>[continued]</i>
“If B causes C and A causes B. Does A cause C?”	
GPT-3	There is not enough information to determine if A causes C.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B, then A causes C. If A causes B, then C causes B. <i>[continued]</i>
“If B causes C and A causes B. Does C cause A?”	
GPT-3	There is no definitive answer to this question as it depends on the specific situation. In some cases, it may be true that C causes A, while in other cases it may not be true.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If A causes B, then C causes A. If A causes C, then B causes A. <i>[continued]</i>

“If G causes Q and Q causes S. Does G cause S?”	
GPT-3	Yes, G causes S.
Luminous	I’m trying to understand the concept of causation. I’m not sure if I’m understanding it correctly. If G causes Q and Q causes S. Does G cause S? <i>[continued]</i>
OPT	If G causes S, then G causes Q. If G causes Q, then G causes S. <i>[continued]</i>
“If Q causes S and G causes Q . Does G cause S?”	
GPT-3	Yes, G causes S.
Luminous A:	The answer is no. <i>[continued]</i>
OPT	If Q causes S and G causes Q, then G causes S. If Q causes S and G causes Q, then G does not cause S. <i>[continued]</i>