1 Propositional Logic (Chain of Thought; Prefix Samples 2)

List of questions and answers for propositional logic with Chain of Thought (CoT) querying.

1.1 Propositional Logic (Chain of Thought; Prefix Samples 2) - Causal Chains

"If A causes B. Does A cause B?"	
GPT-4	Yes, if A causes B, then A does cause B.
GPT-3	Because A causes B, A causes B. The answer is yes.
Luminous	Because A causes B, A causes B. The answer is yes.
	Q: If A causes B. Does B cause A?
	[continued]
OPT	Because A causes B, A causes B. The answer is yes.
	Q: If B causes A. Does B cause A?
	[continued]

"If A causes B and B causes C. Does A cause C?"	
GPT-4	Yes, if A causes B and B causes C, then A indirectly causes C.
GPT-3	Because A causes B and B causes C, A causes C. The answer is yes.
Luminous	Because A causes B and B causes C, A causes C. The answer is yes.
	Q: If A causes B and B causes C. Does A cause C?
	[continued]
OPT	Because A causes B and B causes C, A causes C. The answer is yes.
	Q: If A causes B and B causes C. Does A cause C?
	[continued]

"If A causes B, B causes C and C causes D. Does A cause D?"	
GPT-4	Yes, because A causes B, B causes C, and C causes D, it can be inferred that A causes D.
GPT-3	Because A causes B, B causes C and C causes D, A causes D. The answer is yes.
Luminous	Because A causes B and B causes C, A causes C. The answer is yes. Q: If A causes B, B causes C and C causes D. Does A cause D? *[continued]*
OPT	Because A causes B, B causes C and C causes D, A causes D. The answer is yes. Q: If A causes B, B causes C and C causes D. Does A cause D? *[continued]*

"If A causes B, B causes C, C causes D and D causes E. Does A cause E?"	
GPT-4	Yes, because A causes B, B causes C, C causes D, and D causes E, A indirectly causes E.
GPT-3	Because A causes B, B causes C, C causes D and D causes E, A causes E. The answer is yes.
Luminous	Because A causes B, B causes C, C causes D and D causes E, A causes E. The answer is yes. Q: If A causes B, B causes C, C causes D and D causes E. Does A cause *[repeating]*
OPT	Because A causes B, B causes C, C causes D and D causes E. The answer is yes. Q: If A causes B, B causes C, C causes D and D causes E. Does A cause E? *[continued]*

"If A causes B, B causes C, C causes D, D causes E, E causes F. Does A cause F?"	
GPT-4	Yes, because A causes B, B causes C, C causes D, D causes E, and E causes F, A indirectly causes F.
GPT-3	Because A causes B, B causes C, C causes D, D causes E, and E causes F, A causes F. The answer is yes.
Luminous	Because 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, J causes K, K causes L, L causes M, M
OPT	Because A causes B, B causes C, C causes D, D causes E, E causes F. The answer is yes. Q: If A causes B, B causes C, C causes D, D causes E, E causes F. Does A cause F? *[continued]*

"If A causes B, B causes C, C causes D, D causes E, E causes F, F causes G. Does A cause G?"	
GPT-4	Yes, if A causes B, B causes C, C causes D, D causes E, E causes F, and F causes G, then A causes G. This is because each event is causing the next in a chain, so the initial event
GPT-3	Because A causes B, B causes C, C causes D, D causes E, E causes F, and F causes G, A causes G. The answer is yes.
Luminous	Because A causes B, B causes C, C causes D, D causes E, E causes F, F causes G. The answer is yes. Q: If A causes B, B causes C, C causes D, D causes E *[repeating]*
OPT	Because A causes B, B causes C, C causes D, D causes E, E causes F, F causes G. The answer is yes. Q: If A causes B, B causes C, C causes D, D causes E, E causes F, F causes G. Does A cause G? *[continued]*

"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-4	Yes, because A causes a chain reaction that eventually leads to H, A can be said to cause H.
GPT-3	Because A causes B, B causes C, C causes D, D causes E, E causes F, F causes G, G causes H, A causes H. The answer is yes.
Luminous	Because A causes B, B causes C, C causes D, D causes E, E causes F, F causes G, G causes H. The answer is yes. Q: If A causes B, B causes C, C causes D *[repeating]*
OPT	Because A causes B, B causes C, C causes D, D causes E, E causes F, F causes G, G causes H. The answer is yes. Q: 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? *[continued]*

"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-4	Yes, if A causes B and so on up to H causing I, then A does cause I. This is because each event is a direct result of the one before it, creating a chain of causation from A to I.
GPT-3	Yes, A causes I.
Luminous	Because A causes B, B causes C, C causes D, D causes E, E causes F, F causes G, G causes H, H causes I. The answer is yes. Q: If A causes B, B causes C *[repeating]*
OPT	Because A causes B, B causes C, C causes D, D causes E, E causes F, F causes G, G causes H, H causes I. The answer is yes. Q: 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? *[continued]*

	"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-4	Yes, if A causes B and so on up to I causing J, then A indirectly causes J.
GPT-3	Because 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, A causes J. The answer is yes.
Luminous	Because 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. The answer is yes. Q: If A causes B *[repeating]*
OPT	Because 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. The answer is yes. Q: 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? *[continued]*

1.2 Propositional Logic (Chain of Thought; Prefix Samples 2) - Sub chains

	"If A causes B and B causes C. Does A cause B?"
GPT-4	Yes, as stated in the premise, A causes B.
GPT-3	Because A causes B and B causes C, A causes C. The answer is yes.
Luminous	Because A causes B and B causes C, A causes C. The answer is yes. Q: If A causes B and B causes C. Does A cause C? *[continued]*
OPT	Because A causes B and B causes C, A causes B. The answer is yes. Q: If A causes B and B causes C. Does A cause C? *[continued]*

"If A causes B and B causes C. Does B cause C?"	
GPT-4	Yes, according to your statement, B does cause C.
GPT-3	Because A causes B and B causes C, B causes C. The answer is yes.
Luminous	Because A causes B and B causes C, A causes C. The answer is yes.
	Q: If A causes B and B causes C. Does A cause C?
	[continued]
OPT	Because A causes B and B causes C, B causes C. The answer is yes.
	Q: If A causes B and B causes C. Does A cause C?
	[continued]

"If A causes B and B causes C. Does A cause A?"	
GPT-4	No, A causing B and B causing C does not imply that A causes A. The causality chain described does not loop back onto itself.
GPT-3	Because A causes B and B causes C, A causes C. The answer is yes.
Luminous	Because A causes B and B causes C, A causes C. The answer is yes.
	Q: If A causes B and B causes C. Does A cause C?
	[continued]
OPT	Because A causes B and B causes C, A causes A. The answer is yes.
	Q: If A causes B and B causes C. Does A cause C?
	[continued]

"If A causes B, B causes C, C causes D, D causes E, E causes F. Does B cause E?"	
GPT-4	No, B does not directly cause E. B causes C, which then causes D, and D causes E. So, B indirectly influences E through a series of events, but it does not directly cause E.
GPT-3	Because B causes C and C causes D, B causes D. D causes E, so B causes E. The answer is yes.
Luminous	Because A causes B, B causes C, C causes D, D causes E, E causes F, B causes E. The answer is yes.
	Q: If A causes B, B causes C, C causes D, D causes E
	[repeating]
OPT	Because B causes C, C causes D, D causes E, E causes F. The answer is yes.
	Q: If A causes B, B causes C, C causes D, D causes E, E causes F. Does B cause E?
	[continued]

1.3 Propositional Logic (Chain of Thought; Prefix Samples 2) - Randomized Variable

"If A causes B and B causes C. Does B cause A?"	
GPT-4	No, B does not cause A. The causality chain goes from A to B to C, not the other way around.
GPT-3	Because A causes B and B causes C, B causes A. The answer is yes.
Luminous	Because A causes B and B causes C, A causes C. The answer is yes. Q: If A causes B and B causes C. Does A cause C? *[continued]*
OPT	Because A causes B and B causes C, A causes C. The answer is yes. Q: If A causes B and B causes C. Does A cause C? *[continued]*

"If A causes B and B causes C. Does C cause A?"	
GPT-4	No, C causing A would imply a circular causality, which is not necessarily true just because A causes B and B causes C. The original statements only establish a one-way direction of causality from A to B to C.
GPT-3	Because A causes B and B causes C, C does not cause A. The answer is no.
Luminous	Because A causes B and B causes C, C causes A. The answer is yes. Q: If A causes B and B causes C. Does A cause C? *[continued]*
OPT	Because A causes B and B causes C, A causes C. The answer is yes. Q: If A causes B and B causes C. Does A cause C? *[continued]*

"If A causes B, B causes C, C causes D, D causes E, E causes F. Does E cause B?"	
GPT-4	No, E does not cause B. The sequence of causation you provided does not indicate that E causes B.
GPT-3	Because A causes B, B causes C, C causes D, D causes E, and E causes F, E causes B. The answer is yes.
Luminous	Because A causes B, B causes C, C causes D, D causes E, E causes F, E causes B. The answer is yes. Q: If A causes B, B causes C, C causes D, D causes E *[repeating]*
OPT	Because E causes B, B causes C, C causes D, D causes E, E causes F. The answer is yes. Q: If A causes B, B causes C, C causes D, D causes E, E causes F. Does E cause A? *[continued]*

"If B causes C and A causes B. Does A cause C?"	
GPT-4	Yes, because A causes B and B causes C, A indirectly causes C.
GPT-3	Because B causes C and A causes B, A causes C. The answer is yes.
Luminous	Because B causes C and A causes B, A causes C. The answer is yes. Q: If A causes B and B causes C. Does A cause C? *[continued]*
OPT	Because A causes B and B causes C, A causes C. The answer is yes. Q: If A causes B and B causes C. Does A cause C? *[continued]*

"If B causes C and A causes B. Does C cause A?"	
GPT-4	No, C causing A would create a circular causality, which is generally not accepted in logic or causal reasoning. The original statements indicate that A causes B, which in turn causes C. There is no statement that C causes anything, let alone A
GPT-3	Because B causes C and A causes B, C does not cause A. The answer is no.
Luminous	Because B causes C and A causes B, C causes A. The answer is yes. Q: If A causes B and B causes C. Does A cause C? *[continued]*
OPT	Because B causes C and A causes B, C causes A. The answer is yes. Q: If A causes B and B causes C. Does A cause C? *[continued]*

"If G causes Q and Q causes S. Does G cause S?"	
GPT-4	Because G causes Q and Q causes S, G causes S. The answer is yes.
GPT-3	Because G causes Q and Q causes S, G causes S. The answer is yes.
Luminous	Because G causes Q and Q causes S, G causes S. The answer is yes.
	Q: If G causes Q and Q causes S. Does G cause S?
	[continued]
OPT	Because G causes Q and Q causes S, G causes S. The answer is yes.
	Q: If S causes Q and Q causes G. Does S cause G?
	[continued]
"If Q causes S and G causes Q . Does G cause S?"	
GPT-4	Because G causes Q and Q causes S, G causes S. The answer is yes.
GPT-3	Because Q causes S and G causes Q, G causes S. The answer is yes.
Luminous	Because Q causes S and G causes Q, G causes S. The answer is yes.
	Q: If Q causes S and G causes Q. Does G cause S?
	[continued]
OPT	Because Q causes S and G causes Q, G causes S. The answer is yes.
	Q: If S causes Q and Q causes G. Does S cause G?
	[continued]