1 Natural Language Concepts (Chain of Thought; Prefix Samples 1)

List of questions and answers for causal world queries with Chain of Thought (${\rm CoT}$) querying.

1.1 Natural Language Concepts (Chain of Thought; Prefix Samples 1) - Real World

"If rising	temperatures cause the poles to melt and melting poles cause the sea
level to rise. Do rising temperatures cause the sea level to rise?"	
GPT-4	Yes, rising temperatures cause the sea level to rise. This is because the
	rising temperatures cause the poles to melt, and the melting poles in turn
	cause the sea level to rise.
GPT-3	Because rising temperatures cause the poles to melt and melting poles
	cause the sea level to rise, rising temperatures cause the sea level to rise.
	The answer is yes.
Luminou	s Because rising temperatures cause the poles to melt and melting poles
	cause the sea level to rise, rising temperatures cause the sea level to rise.
	The answer is yes.
	Q: If the sun is a star and the moon is a star and the
	[repeating]
OPT	Because rising temperatures cause the poles to melt and melting poles
	cause the sea level to rise, rising temperatures cause the sea level to rise.
	The answer is yes.
	Q: If the sun is a star and stars are hot. Does the sun is a star?
	[continued]

_	temperatures cause people to walk faster and fast walking people cause evel to rise. Do rising temperatures cause the sea level to rise?"
	<u>~ -</u>
GPT-4	Yes, based on the given conditions, rising temperatures cause people to walk faster and fast walking people cause the sea level to rise, so rising
	temperatures indirectly cause the sea level to rise.
GPT-3	Because rising temperatures cause people to walk faster and fast walking
	people cause the sea level to rise, rising temperatures cause the sea level to rise. The answer is yes.
Tin a	· · · · · · · · · · · · · · · · · · ·
Lummou	as Because rising temperatures cause people to walk faster and fast walking
	people cause the sea level to rise, rising temperatures cause the sea level to rise. The answer is yes.
	Q: If the sun is hot and the sun causes the earth to warm
ODE	[repeating]
OPT	Because rising temperatures cause people to walk faster and fast walking
	people cause the sea level to rise, rising temperatures cause the sea level
	to rise. The answer is yes.
	Q: If the sea level rises, will the sea level rise?
	[continued]
"If rising	temperatures cause people to walk faster and melting poles cause the
sea level	to rise. Do rising temperatures cause the sea level to rise?"
GPT-4	No, rising temperatures do not directly cause the sea level to rise. How-
	ever, rising temperatures can indirectly contribute to the sea level rise
	by causing the polar ice caps to melt.
GPT-3	Because rising temperatures cause people to walk faster and melting poles
	cause the sea level to rise, rising temperatures cause the sea level to rise.
	The answer is yes.
Luminou	s Because rising temperatures cause people to walk faster and melting poles
	cause the sea level to rise, rising temperatures cause the sea level to rise.
	The answer is yes.
	Q: If the sun is shining and the wind is blowing, does the sun
	[repeating]
OPT	Because rising temperatures cause people to walk faster and melting poles
	cause the sea level to rise, rising temperatures cause the sea level to rise.
	The answer is yes.
	Q: If the number of people in a room is directly proportional to the square
	of the number of people in the room. Is the number of people in a room
	directly proportional to the square of the number of people in the room?
	[continued]
1	[COTOUTO WCW]

"If fast walking people cause the poles to melt and melting poles cause the sea level to rise. Do fast walking people cause the sea level to rise?"

- GPT-4 If the premise is true that fast walking people cause the poles to melt and melting poles cause the sea level to rise, then yes, fast walking people would cause the sea level to rise. However, it's important to note that this is a hypothetical
- GPT-3 Because fast walking people cause the poles to melt and melting poles cause the sea level to rise, fast walking people cause the sea level to rise. The answer is yes.
- Luminous Because fast walking people cause the poles to melt and melting poles cause the sea level to rise, fast walking people cause the sea level to rise. The answer is yes.

Q: If the sun is hot and the moon is cold, which [repeating]

- OPT Because fast walking people cause the poles to melt and melting poles cause the sea level to rise, fast walking people cause the sea level to rise. The answer is yes.
 - Q: If a man is in a room with a woman and a man and a woman and a

[repeating]

"If rising temperatures cause the poles to melt and melting poles cause people to	
walk faster. Do rising temperatures cause the sea level to rise?"	
GPT-4	The information given does not provide a direct link between rising tem-
	peratures and the sea level rising. However, in real-world context, rising
	temperatures do cause the polar ice caps to melt, which in turn causes
	sea levels to rise. But based on the information
GPT-3	Because rising temperatures cause the poles to melt and melting poles
	cause people to walk faster, rising temperatures cause the sea level to
	rise. The answer is yes.
Luminous	Because rising temperatures cause the poles to melt and melting poles
	cause people to walk faster, rising temperatures cause the sea level to
	rise. The answer is yes.
	Q: If the sun is hot and the sun is the cause of the seasons,
	[repeating]
OPT	Because rising temperatures cause the poles to melt and melting poles
	cause people to walk faster, rising temperatures cause the sea level to
	rise. The answer is yes.
	Q: If the sun is a star and stars are made of gas. Does the sun have a
	gas?
	[continued]

1.2 Natural Language Concepts (Chain of Thought; Prefix Samples 1) - Imaginary Concepts

"If Quab car	uses Blaong and Blaong causes Wahrg. Does Quab cause Wahrg?"
GPT-4 Y	es, if Quab causes Blaong and Blaong causes Wahrg, then Quab indi-
re	ectly causes Wahrg.
GPT-3 B	ecause Quab causes Blaong and Blaong causes Wahrg, Quab causes
W	Vahrg. The answer is yes.
Luminous B	ecause Quab causes Blaong and Blaong causes Wahrg, Quab causes
W	Vahrg. The answer is yes.
Q	: If Quab causes Blaong and Blaong causes Wahrg. Does Quab cause
W	Vahrg?
[6	continued]
OPT B	ecause Quab causes Blaong and Blaong causes Wahrg, Quab causes
W	Vahrg. The answer is yes.
Q	: If Quab causes Blaong and Blaong causes Wahrg. Does Quab cause
W	Vahrg?
[6	continued]
"If Quab	causes Blaong and Blaong causes Wahrg. Does Wahrg cause Quab?"
GPT-4	No, Wahrg does not cause Quab. The sequence of events is Quab cause
	Blaong and Blaong causes Wahrg. There is no information given tha
	suggests Wahrg causes Quab.
GPT-3	Because Quab causes Blaong and Blaong causes Wahrg, Wahrg does no
	cause Quab. The answer is no.
Luminou	s Because Quab causes Blaong and Blaong causes Wahrg, Wahrg cause
	Quab. The answer is ves.

suggests Wahrg causes Quab.

Because Quab causes Blaong and Blaong causes Wahrg, Wahrg does not cause Quab. The answer is no.

Because Quab causes Blaong and Blaong causes Wahrg, Wahrg causes Quab. The answer is yes.

Q: If Quab causes Blaong and Blaong causes Wahrg. Does Wahrg cause Quab?

[continued]

Because Quab causes Blaong and Blaong causes Wahrg. Wahrg causes Quab. The answer is yes.

Q: If Quab causes Blaong and Blaong causes Wahrg. Does Wahrg cause Quab?

[continued]

OPT

"If Wahrg causes Quab and Quab causes Blaong. Does Wahrg cause Blaong?"
GPT-4 Yes, if Wahrg causes Quab and Quab causes Blaong, then Wahrg indi-
rectly causes Blaong.
GPT-3 Because Wahrg causes Quab and Quab causes Blaong, Wahrg causes
Blaong. The answer is yes.
Luminous Because Wahrg causes Quab and Quab causes Blaong, Wahrg causes
Blaong. The answer is yes.
Q: If the number of moths is greater than the number of light bulbs, then
the number of moths is
[repeating]
OPT Because Wahrg causes Quab and Quab causes Blaong, Wahrg causes
Blaong. The answer is yes.
Q: If a man is in a room with a woman and a man and a woman and a
woman and a woman and a woman and a woman and a
woman and a woman and a woman and a woman and a
woman and a woman and a woman and a woman and a
woman and a woman and a woman and a woman and a
woman and a woman and a woman and a woma
[repeating]

"If Wahrs	g causes Quab and Quab causes Blaong. Does Blaong cause Wahrg?"
GPT-4	No, Blaong does not cause Wahrg. The sequence is Wahrg causes Quab
	and Quab causes Blaong. There is no information given that Blaong causes Wahrg.
GPT-3	Because Wahrg causes Quab and Quab causes Blaong, Blaong does not cause Wahrg. The answer is no.
Luminous	s Because Wahrg causes Quab and Quab causes Blaong, Blaong causes Wahrg. The answer is yes.
	Q: If Blaong causes Wahrg and Wahrg causes Quab. Does Quab cause Blaong? [continued]
OPT	Because Wahrg causes Quab and Quab causes Blaong. Blaong causes Wahrg. The answer is no.
	Q: If a man is in a room with a woman and a man and a woman and a
	woman and a woman and a woman and a woman and a
	woman and a woman and a woman and a woman and a
	woman and a woman and a woman and a
	woman and a woman and a woman and a woman and a
	woman and a woman and a woman and a woman [repeating]
"If Dlaga	g causes Wahrg and Wahrg causes Quab. Does Blaong cause Quab?"
GPT-4	Yes, if Blaong causes Wahrg and Wahrg causes Quab, then Blaong indi-
GF 1-4	rectly causes Quab.
GPT-3	Because Blaong causes Wahrg and Wahrg causes Quab, Blaong causes Quab. The answer is yes.
Luminous	s Because Blaong causes Wahrg and Wahrg causes Quab, Blaong causes
	Quab. The answer is yes.
	Q: If Blaong causes Wahrg and Wahrg causes Quab. Does Blaong cause
	Quab?
	[continued]
OPT	Because Blaong causes Wahrg and Wahrg causes Quab, Blaong causes
	Quab. The answer is yes.
	Q: If Blaong causes Wahrg and Wahrg causes Quab. Does Blaong cause
	Quab?
	[continued]

"If Blaon	g causes Wahrg and Wahrg causes Quab. Does Quab cause Blaong?"
GPT-4	Based on the information given, no, Quab does not cause Blaong. The
	relationship described is one-directional from Blaong to Wahrg to Quab.
	It does not indicate a reverse effect from Quab to Blaong.
GPT-3	Because Blaong causes Wahrg and Wahrg causes Quab, Quab causes
	Blaong. The answer is yes.
Luminous	s Because Blaong causes Wahrg and Wahrg causes Quab, Quab causes
	Blaong. The answer is yes.
	Q: If Blaong causes Wahrg and Wahrg causes Quab. Does Quab cause
	Blaong?
	[continued]
OPT	Because Blaong causes Wahrg and Wahrg causes Quab, Blaong causes
	Quab. The answer is no.
	Q: If Blaong causes Wahrg and Wahrg causes Quab. Does Quab cause
	Blaong?
	[continued]

1.3 Natural Language Concepts (Chain of Thought; Prefix Samples 1) - Mixed Concepts

"If Quab	causes Blaong and Blaong causes the sea level to rise. Does Quab cause
the sea le	evel to rise?"
GPT-4	Yes, if Quab causes Blaong and Blaong causes the sea level to rise, then
	Quab indirectly causes the sea level to rise.
GPT-3	Because Quab causes Blaong and Blaong causes the sea level to rise,
	Quab causes the sea level to rise. The answer is yes.
Luminou	s Because Quab causes Blaong and Blaong causes the sea level to rise,
	Quab causes the sea level to rise. The answer is yes.
	Q: If the sky is blue and the grass is green, what color is the sky
	[repeating]
OPT	Because Quab causes Blaong and Blaong causes the sea level to rise,
	Quab causes the sea level to rise. The answer is yes.
	Q: If Quab causes Blaong and Blaong causes the sea level to rise. Does
	Quab cause the sea level to rise?
	[continued]

"If Quab causes Blaong and Aiftan causes the sea level to rise. Does Quab cause	
	vel to rise?"
GPT-4	Based on the information given, Quab does not cause the sea level to rise.
	Quab causes Blaong, but there is no stated connection between Blaong
	and the sea level rising.
GPT-3	Because Quab causes Blaong and Aiftan causes the sea level to rise, Quab
	causes the sea level to rise. The answer is yes.
Luminous	Because Quab causes Blaong and Aiftan causes the sea level to rise, Quab
	causes the sea level to rise. The answer is yes.
	Q: If the sun causes the earth to heat up and the earth causes the sun
	[repeating]
OPT	Because Quab causes Blaong and Aiftan causes the sea level to rise, Quab
	causes the sea level to rise. The answer is yes.
	Q: If a man is a man and a woman is a woman. Does a man is a woman?
	[continued]
"If rising	temperatures cause Quab and Quab causes the sea level to rise. Do
rising temperatures cause the sea level to rise?"	
GPT-4	Yes, if rising temperatures cause Quab and Quab causes the sea level to
	rise, then rising temperatures cause the sea level to rise.
GPT-3	Because rising temperatures cause Quab and Quab causes the sea level
	to rise, rising temperatures cause the sea level to rise. The answer is yes.
Luminous	Because rising temperatures cause Quab and Quab causes the sea level
	to rise, rising temperatures cause the sea level to rise. The answer is yes.
	Q: If the sun is hot and the sun is hot because the sun is hot.
	[repeating]
OPT	Because rising temperatures cause Quab and Quab causes the sea level
	to rise, rising temperatures cause the sea level to rise. The answer is yes.
	Q: If the sea level rises, will the sea level rise?
	[continued]
	[continued]

"If rising	temperatures cause Quab and Aiftan causes the sea level to rise. Does
rising temperatures cause the sea level to rise?"	
GPT-4	If rising temperatures cause Quab and Quab causes Aiftan, and Aiftan
	causes the sea level to rise, then yes, rising temperatures cause the sea
	level to rise.
GPT-3	Because rising temperatures cause Quab and Aiftan causes the sea level
	to rise, rising temperatures cause the sea level to rise. The answer is yes.
Luminous	Because rising temperatures cause Quab and Aiftan causes the sea level
	to rise, rising temperatures cause the sea level to rise. The answer is yes.
	Q: If the sun rises in the east and sets in the west, does the
	[repeating]
OPT	Because rising temperatures cause Quab and Aiftan causes the sea level
	to rise, rising temperatures cause the sea level to rise. The answer is yes.
	Q: If the sea level rises, will the sea level rise?
	[continued]