

Premises and Conclusions

1. Standard Form

We will find it useful to represent arguments in a precise, standardized formation called **standard form**. Representing an argument in standard form involves the following steps.

Standard Form

- Each premise is numbered
- The conclusion is listed last
- A horizontal line separates the premises from the conclusion
- The conclusion symbol “ \therefore ” is written before the conclusion
- Irrelevant material, which is not part of the premise or conclusion, is discarded

For instance, our earlier argument

Rex borrowed ten dollars from Ace on Friday. He borrowed another ten dollars from Ace on Saturday. And he hasn't paid any of that money back. So, Rex owes Ace twenty dollars.

would be represented in standard form like so.

1. Rex borrowed ten dollars from Ace on Friday.
2. He borrowed another ten dollars from Ace on Saturday.
3. He hasn't paid any of that money back.

\therefore Rex owes Ace twenty dollars.

Standard form makes the argument visually simpler to analyze and dissect, and easier to discuss as well. For instance, I can call your attention to “Premise 3” without having to state the premise in so many words.

If all arguments were like the ones we've looked at, putting them in standard form would be a trivial task. That's because so far all our examples of arguments have been of the simplest variety: a few premises, followed by a conclusion. But as we will see repeatedly in the chapters to follow, English

permits numerous variations on the same basic argument. Here we rehearse some of the complications this variety brings even to so tame a topic as standard form.

2. Conclusions

In our examples so far the conclusion has been easy to locate: it's been the last sentence in the argument. But that's not always the case. For instance, our earlier argument could have been phrased like this.

Rex owes Ace twenty dollars. After all, Rex borrowed ten dollars from Ace on Friday. He borrowed another ten dollars from Ace on Saturday. And he hasn't paid any of that money back.

Here the conclusion comes first, and the premises after. Still, this argument winds up in the same standard form as the earlier version. So we can't count on the conclusion to come last in English.

But we can count on the conclusion to appear in the following likely places.

Likely Places for the Conclusion

- At or near the beginning of the argument
- At or near the end of the argument

By contrast, having the conclusion in the middle of an argument – with several premises before, and several more after – would be extremely *unlikely*.

Conclusion markers provide a second clue for locating the conclusion. Conclusion markers are phrases that appear immediately before a conclusion. The following are some common examples.

Conclusion Markers

Therefore	That means (that)
Thus	Shows (that)
So	Proves (that)
Hence	Indicates (that)
Consequently	Demonstrates (that)
In conclusion	For these reasons, we see (that)
We conclude (that)	
It follows (that)	<i>Modal Phrases:</i> must, have to; must not; cannot

The conclusion of our earlier argument could have been stated in any of the following ways.

So, Rex owes Ace twenty dollars
Therefore, Rex owes Ace twenty dollars
Hence Rex owes Ace twenty dollars
So Rex **must** owe Ace twenty dollars

Note that conclusion markers, though useful, do not count as part of the conclusion when the argument is put in standard form. All of the sentences in the above list would be written in standard form like so.

Rex owes Ace twenty dollars

Modal Phrases: Conclusion-Marking and Obligation

Modal phrases such as “must” or “have to” require a bit of extra caution, as they only sometimes mark a conclusion. Another use of these phrases is to talk about **obligation**. In this argument, “must” acts as a conclusion marker.

Rex is either at the bar or the football game. But the football game ended hours ago. So Rex **must** be at the bar.

But in the following argument “must” isn’t marking the conclusion. It’s stating an obligation Rex has.

Every business owner must be at their business for the town inspection. Rex owns the bar. So Rex **must** be at the bar.

A rough rule of thumb of thumb for separating the two is that conclusion-marking “must” can be reworded, without change of meaning, as “*It must be that,*” while obligation must typically can’t be.

So the sentence “Rex must be at the bar,” with conclusion-marking “must, is saying the same thing as the sentence

It must be that Rex is at the bar.

But “Rex must be at the bar” intended with an obligation “must” certainly *doesn’t* mean “It must be that Rex is at the bar.”

3. Premises

Premises have their own family of marker phrases, which we naturally call **premise markers**. Here are some common examples.

Premises Markers

Since	As shown by
Because	As indicated by
For	On the grounds that
Follows from	For the reason that
May be inferred from	From the fact that
May be deduced from	After all

When one premise is followed by a second, a special marker can appear before the second premise tagging it as further evidence. We call such markers “**follow-up phrases**,” since they highlight that the original evidence is being followed up with additional support. Here are some typical follow-up phrases.

Follow-Up Phrases

Moreover	Likewise
What’s more	Besides
Furthermore	Also
In addition	And
In fact	

A word of caution: these terms aren’t *always* used as follow-up phrases. For example, for example, in the sentence “It’s sunny and it’s warm,” the word “and” isn’t marking “It’s warm” as a further premise – just linking it to the sentence “It’s sunny”. A useful clue: when “and” is serving as a follow-up phrase, it appears at the *beginning* of the sentence; whereas when simply linking two sentences together, “and” appears in the middle.

4. Standard Form: Examples and Details.

We finish with some examples illustrating the finer points of stating arguments in standard form.

I'll tell you what I think: the prime rate has changed three times in the last year. And that means that the bond prices will change soon.

With only two sentences in this argument, every sentence is at or near either the beginning or the end of the passage. So 'likely places' are no help in finding the conclusion. But markers do work here: the words "that means that" mark what follows as the conclusion – leaving the first sentence to serve as the sole premise.

1. The prime rate has changed three times in the last year.

∴ The bond prices will change soon.

Since markers don't count as part of the premise or conclusion they mark, "that means that" is left out of the argument in standard form. Non-essential, introductory 'window dressing' such as "I'll tell you what I think" is discarded for the same reason: standard form should show only the bare bones of the argument.

A longer example allows us to use our "likely places" clue.

It's clear that our country needs to reinstate the draft. After all, recent history suggests that we'll need a larger military in the future. And with the aging population there'll be fewer young volunteers.

Since we don't expect the conclusion to be buried in the middle of premises, either the first or third sentence is likely to be the conclusion. The marker "after all" pegs the second sentence as a premise, while the "and" before the third acts as a follow-up phrase, signaling that it's a further premise.

“It’s clear that” may be a sort of conclusion marker, or (more likely) just some introductory matter. Either way, it’s left out of the standard form.

1. Recent history suggests that we’ll need a larger military in the future.
2. With the aging population there’ll be fewer young volunteers.

∴ Our country needs to reinstate the draft.

Arguments with conclusion first sometimes require a bit of further adjustment in standard form, as the next example shows.

Jack can’t be a dog. The evidence is simple: he neither barks nor wags his tail.

While “the evidence is simple” wasn’t listed as a common premise marker, the word ‘evidence’ tips us to the fact that it’s marking a premise all the same. And the modal “can’t” is most likely a conclusion marker, since the first sentence can be reasonably rephrased as “It can’t be that Jack is a dog”. Removing these markers yields the following standard form.

1. He [Jack] neither barks nor wags his tail.

∴ Jack isn’t a dog.

As a result of moving the conclusion to the end, the pronoun “he” appears in the first sentence before we’re told (in the next sentence) who “he” is pointing to. We fix this by adding “Jack” in brackets.

Summary

Finding the Conclusion

- likely places: at/near the beginning, at/near the end
- conclusion markers

Finding Premises

- premise markers
- follow-up phrases

Putting Arguments into Standard Form

- List each premise and the conclusion on separate lines.
- Put the conclusion last (when necessary inserting bracketed information in premises to explain ambiguous pronouns like “he,” “she,” “they,” or “it”)
- Delete all non-essential material, including introductory comments and premise and conclusion markers.
- Separate premises from the conclusion with a horizontal line
- Number each premise.
- Insert a conclusion sign (“∴”) before the conclusion.