

As you can see, learning the principles of critical thinking or logic requires at least some prior knowledge and ability. But, you may wonder (especially if this is your first course in critical or logical reasoning), Where does this prior knowledge and ability come from—and do you have these prerequisites? Fortunately, the answer is yes. Since you are, as Aristotle says, a rational animal, you already have the necessary equipment, namely, a logical sense that helps you reason in everyday life and enables you to begin honing your critical reasoning.



KEY WORDS

argument
explanation
logic

conclusion
indicator words
premise

critical thinking
inference
statement




EXERCISES

Exercises marked with * have answers in “Answers to Exercises” (Appendix A).

Exercise 1.1

- *1. What is critical thinking?
2. Is critical thinking primarily concerned with *what* you think or *how* you think?
3. Why is critical thinking systematic?
- *4. According to the text, what does it mean to say that critical thinking is done according to rational standards?
5. According to the text, how does a lack of critical thinking cause a loss of personal freedom?
- *6. What does the term *critical* refer to in critical thinking?
7. In what way can feelings and critical thinking complement each other?
- *8. What is a statement?
9. Give an example of a statement. Then give an example of a sentence that is not a statement.
10. According to the text, by what standard should we always proportion our acceptance of a statement?
- *11. What is an argument?
12. Give an example of an argument with two premises.
13. What is a premise?
- *14. What is a conclusion?

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15. Why can't a mere assertion or statement of beliefs constitute an argument?
 16. True or false: All disagreements contain an argument.
 - *17. Does the following passage contain an argument? *Sample passage:* I couldn't disagree more with Olivia. She says that video games provoke young men to violence and other insensitive acts. But that's just not true.
 18. Does the following passage contain an argument? *Sample passage:* Alonzo asserts that the government should be able to arrest and imprison anyone if they are suspected of terrorist acts. But that's ridiculous. Doing that would be a violation of basic civil liberties guaranteed in the Bill of Rights.
 - *19. What are indicator words?
 20. List three conclusion indicator words.
 21. List three premise indicator words.
 22. Give an example of a short argument that uses one or more indicator words.
 - *23. What is probably the best strategy for trying to find an argument in a complex passage?
 24. True or false: You can almost always find an argument in narrative writing.

Exercise 1.2

For each of the following sentences, indicate whether it is or is not a statement.

- *1. Now that you're mayor of the city, do you still believe that the city government is a waste of time?
2. Do not allow your emotions to distort your thinking.
3. If someone wants to burn the American flag, they should be able to do it without interference from the police.
- *4. Do you think that I'm guilty?
5. Should our religious beliefs be guided by reason, emotion, or faith?
6. Stop driving on the left side of the road!
- *7. The Vietnam War was a terrible mistake.
8. The Vietnam War was not a terrible mistake.
9. I shall do my best to do my duty to God and my country.
- *10. Are you doing your best for God and country?

Exercise 1.3

For each of the following passages indicate whether it constitutes an argument. For each argument specify what the conclusion is.


- *1. René hates Julia, and she always upsets him, so he should avoid her.
2. Do you think the upcoming election will change anything?
3. I pledge allegiance to the flag of the United States of America and to the republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

- *4. Why do you think you have the right to park your car anywhere you please?
5. Wait just a minute. Where do you think you're going?
6. If you smoke that cigarette in here, I will leave the room.
- *7. The *Titanic* sank, and no one came to save it.
8. Jesus loves me, for the Bible tells me so.
9. Spiderman is a better superhero than Superman because kryptonite can't hurt him, and he doesn't have a Lois Lane around to mess things up.
10. "Whether our argument concerns public affairs or some other subject we must know some, if not all, of the facts about the subject on which we are to speak and argue. Otherwise, we can have no materials out of which to construct arguments." [Aristotle, *Rhetoric*]
- *11. If guns are outlawed, then only outlaws will have guns. Don't outlaw guns.
12. If someone says something that offends me, I should have the right to stop that kind of speech. After all, words can assault people just as weapons can.
13. "Citizens who so value their 'independence' that they will not enroll in a political party are really forfeiting independence, because they abandon a share in decision-making at the primary level: the choice of the candidate." [Bruce L. Felknor, *Dirty Politics*]
14. If someone says something that offends me, I cannot and should not try to stop them from speaking. After all, in America, speech—even offensive speech—is protected.
- *15. "Piercing car alarms have disturbed my walks, café meals or my sleep at least once during every day I have lived in the city; roughly 3,650 car alarms. Once, only once, was the wail a response to theft . . . Silent car alarms connect immediately to a security company, while the noisy ones are a problem, not a solution. They should be banned, finally." [Letter to the editor, *New York Times*]
16. "If history is a gauge, the U.S. government cannot be trusted when it comes to sending our children to war. It seems that many years after Congress sends our children to war, we find out that the basic premise for the war was an intentional lie." [Letter to the editor, *L.A. Daily News*]

Exercise 1.4

For each of the following passages indicate whether it constitutes an argument. For each argument specify both the conclusion and the premises.

- *1. Faster-than-light travel is not possible. It would violate a law of nature.
2. You have neglected your duty on several occasions, and you have been absent from work too many times. Therefore, you are not fit to serve in your current capacity.

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3. Racial profiling is not an issue for white people, but it is an issue for African Americans.
 - *4. The flu epidemic on the East Coast is real. Government health officials say so. And I personally have read at least a dozen news stories that characterize the situation as a “flu epidemic.”
 5. Communism is bunk. Only naïve, impressionable pinheads believe that stuff.
 6. “Current-day Christians use violence to spread their right-to-life message. These Christians, often referred to as the religious right, are well known for violent demonstrations against Planned Parenthood and other abortion clinics. Doctors and other personnel are threatened with death, clinics have been bombed, there have even been cases of doctors being murdered.” [Letter to the editor, *Arizona Daily Wildcat*]
 - *7. “I am writing about the cost of concert tickets. I am outraged at how much ticket prices are increasing every year. A few years ago, one could attend a popular concert for a decent price. Now some musicians are asking as much as \$200 to \$300.” [Letter to the editor, *Buffalo News*]
 8. “Homeland security is a cruel charade for unborn children. Some 4,000 per day are killed in their mother’s womb by abortion. This American holocaust was legalized by the Supreme Court in an exercise of raw judicial power.” [Letter to the editor, *Buffalo News*]
 9. Witches are real. They are mentioned in the Bible. There are many people today who claim to be witches. And historical records reveal that there were witches in Salem.
 - *10. Stretched upon the dark silk night, bracelets of city lights glisten brightly.
 11. Vaughn’s car is old. It is beat up. It is unsafe to drive. Therefore, Vaughn’s car is ready for the junkyard.

Exercise 1.5

For each of the following conclusions, write at least two premises that can support it. Your proposed premises can be entirely imaginary. To concoct the premises, think of what kind of statement (if true) would convince you to believe the conclusion.

EXAMPLE

Conclusion: Pet psychics can diagnose a dog’s heartburn 100 percent of the time.

Premise 1: In the past fifty years, in hundreds of scientific tests, pet psychics were able to correctly diagnose heartburn in dogs 100 percent of the time.

Premise 2: Scientists have confirmed the existence of energy waves that can carry information about the health of animals.

1. What this country needs is more family values.
2. All animals—rodents, dogs, apes, whatever—have moral rights, just as people do.
- *3. Every woman has the right to abort her fetus if she so chooses.
4. When I looked into your eyes, time stood still.
5. Repent! The end is near.
- *6. When it comes to animals, Vaughn doesn't know what he's talking about.
7. Suspicion has arisen regarding the financial dealings of Governor Spendthrift.
8. The Internet is the most dangerous tool that terrorists have in their arsenal.
- *9. The Internet is the best tool that law enforcement officials have against terrorists.
10. Pornography is good for society because it educates people about sexuality.
11. Pornography is bad for society because it misleads people about sexuality.
- *12. *Stranger Things* is the greatest series Netflix has ever offered.
13. It is the duty of every student to prevent this arbitrary tuition increase.
14. Jill cannot hold her liquor.

Exercise 1.6

For each of the following passages, determine if there is an argument present. If so, identify the premises and the conclusion.

- *1. "[T]he Religious Right is *not* 'pro-family'. . . . Concerned parents realize that children are curious about how their bodies work and need accurate, age-appropriate information about the human reproductive system. Yet, thanks to Religious Right pressure, many public schools have replaced sex education with fear-based 'abstinence only' programs that insult young people's intelligence and give them virtually no useful information." [Rob Boston, *Free Inquiry Magazine*]
2. "[Francis Bacon] is the father of experimental philosophy. . . . In a word, there was not a man who had any idea of experimental philosophy before Chancellor Bacon; and of an infinity of experiments which have been made since his time, there is hardly a single one which has not been pointed out in his book. He had even made a good number of them himself." [Voltaire, *On Bacon and Newton*]
- *3. "Is there archaeological evidence for the [Biblical] Flood? If a universal Flood occurred between five and six thousand years ago, killing all humans except the eight on board the Ark, it would be abundantly clear in the archaeological record. Human history would be marked by an absolute break. We would see the devastation wrought by the catastrophe in terms of the destroyed physical remains of pre-Flood human

settlements. . . . Unfortunately for the Flood enthusiasts, the destruction of all but eight of the world's people left no mark on the archaeology of human cultural evolution." [Kenneth L. Feder, *Frauds, Myths, and Mysteries*]

4. "Subjectivism claims that what makes an action [morally] right is that a person approves of it or believes that it's right. Although subjectivism may seem admirably egalitarian in that it takes everyone's moral judgments to be as good as everyone else's, it has some rather bizarre consequences. For one thing, it implies that each of us is morally infallible. As long as we approve of or believe in what we are doing, we can do no wrong. But this cannot be right. Suppose that Hitler believed that it was right to exterminate the Jews. Then it was right for Hitler to exterminate the Jews. . . . But what . . . Hitler did was wrong, even if [he] believed otherwise." [Theodore Schick, Jr., *Free Inquiry Magazine*]



Self-Assessment Quiz

Answers appear in "Answers to Self-Assessment Quizzes" in Appendix B.

1. What is an argument?
2. Name at least three premise indicators and three conclusion indicators.
3. Select the sentence that is *not* a statement:
 - a. When I met you, you didn't know anything about logic.
 - b. Read the story and write a complete review of it.
 - c. Four score and seven years ago our fathers brought forth on this continent a new nation.
 - d. The best pizza in town can be had at Luigi's.
4. From the following list, select the conclusion that is supported by the premises in the following argument:

When conservative John Wately last spoke on this campus, he was shouted down by several people in the audience who do not approve of his politics. He tried to continue but finally had to give up and walk away. That was unfortunate, but he's not the only one. This kind of treatment has also happened to other unpopular guest speakers. How easily the students at this university forget that free speech is guaranteed by the Bill of Rights. University regulations also support free speech for all students, faculty, and visitors and strictly forbid the harassment of speakers. And this

country was founded on the idea that citizens have the right to freely express their views—even when those views are unpopular.

- a. John Wately is a fascist.
 - b. We should never have guest speakers on campus.
 - c. Campus speakers should be allowed to speak freely without being shouted down.
 - d. Some guest speakers deserve to have the right of free speech and some don't.
5. Indicate whether the following passage contains an argument. If it does, specify the conclusion.

We live in an incredibly over-reactionary society where the mindless forces of victim demagoguery have unfortunately joined with the child-worship industry. It is obviously tragic that a few twisted kids perpetuated such carnage there in Columbine. [Letter to the editor, Salon.com]

6. Indicate whether the following passage contains an argument. If it does, specify the conclusion.

“War doesn't solve problems; it creates them,” said an Oct. 8 letter about Iraq. World War II solved problems called Nazi Germany and militaristic Japan and created alliances with the nations we crushed. . . . The Persian Gulf war solved the problem of the Iraqi invasion of Kuwait. The Civil War solved the problem of slavery. These wars created a better world. War, or the threat of it is the only way to defeat evil enemies who are a threat to us. There is no reasoning with them. There can be no peace with them . . . so it's either us or them. What creates true peace is victory. [Letter to the editor, *New York Times*]

7. Indicate whether the following passage contains an argument. If so, specify the conclusion.

Paul Krugman will always reach the same answer, namely that President Bush is wrong about everything. This time, he asserts that the federal government is “slashing domestic spending.” Really? The president's budget request for 2003 would raise domestic spending 6 percent. Even setting aside spending that is related to homeland security, the president's request was for more than 2 percent growth, or nearly \$7 billion in new dollars. In total, over the last five years, domestic spending will have skyrocketed by more than 40 percent. [Letter to the editor, *New York Times*]

For questions 8–12, indicate which sentences or sentence fragments are likely to be conclusions and which are likely to be premises.

8. Therefore, the Everglades will be destroyed within three years.
9. Assuming that you will never reach Boston
10. This implies that you are not driving as safely as you should.
11. Given all the hoopla surrounding the football team
12. It follows that sexual harassment should be a crime.

For questions 13–15, write at least two premises for each of the numbered conclusions. You can make up the premises, but you must ensure that they support the conclusion.

13. DNA evidence should be disallowed in cases of capital murder.
14. Computers will never be able to converse with a human being well enough to be indistinguishable from humans.
15. The great prophet Nostradamus (1503–1566) predicted the September 11 terrorist attacks.

Read the following argument. Then in questions 16–20, supply the information requested. Each question asks you to identify by number all the sentences in the argument that fulfill a particular role—conclusion, premise, background information, example or illustration, or reiteration of a premise or the conclusion. Just write down the appropriate sentence numbers.

[1] Is global warming a real threat? [2] Or is it hype propagated by tree-hugging, daft environmentalists? [3] The president apparently thinks that the idea of global climate change is bunk. [4] But recently his own administration gave the lie to his bunk theory. [5] His own administration issued a report on global warming. [6] It gave no support to the idea that global warming doesn't happen and we should all go back to sleep. [7] Instead, it asserted that global warming was definitely real and that it could have catastrophic consequences if ignored. [8] For example, global climate change could cause heat waves, extreme weather, and water shortages right here in the United States. [9] The report is also backed by many other reports, including a very influential one from the United Nations. [10] Yes, global warming is real. [11] It is as real as typhoons and ice storms.

16. Conclusion.
17. Premise or premises.
18. Background information.
19. Example or illustration.
20. Repetition of conclusion or premise.



Writing Assignments

1. Select an issue from the following list and write a three-page paper defending a claim pertaining to the issue. For guidance in writing argumentative essays, see chapter 12.
 - Should there be a constitutional amendment banning the desecration of the American flag?
 - Should a representation of the Ten Commandments be allowed to be displayed in a federal courtroom?
 - Should the legal drinking age be lowered?
 - Should the private ownership of fully automatic machine guns be outlawed?
2. Obtain the “Letters to the Editor” section of any newspaper (including student newspapers and online newspapers). Select a letter that contains at least one argument. Locate the conclusion and each premise. Next go through the letters again to find one that contains no argument at all. Rewrite the letter so that it contains at least one argument. Try to preserve as much of the original letter as possible. Stay on the same topic.