

## Identifying Arguments

The starred items are also contained in the Answer Key in the back of *The Power of Logic*.

### Exercise 2.1

#### Part A: Arguments and Nonarguments

- \*1. Nonargument (explanation).
- 2. Nonargument (conditional statement).
- 3. Nonargument (report).
- \*4. Argument. *Conclusion:* Waging war is always wrong.
- 5. Nonargument (explanation).
- 6. Argument. *Conclusion:* Today the principal threat to America is America's public education establishment.
- \*7. Argument. *Conclusion:* Without us, light does not exist.
- 8. Nonargument (conditional statement).
- 9. Nonargument (report).
- \*10. Nonargument (explanation).
- 11. Nonargument (explanation).
- 12. Argument. *Conclusion:* The population of the world has grown both steadily and rapidly since 1950.
- \*13. Nonargument (report).
- 14. Argument. *Conclusion:* James died because he was hanged.
- 15. Argument. *Conclusion:* Not all mob bosses avoid prison.
- \*16. Nonargument (illustration).
- 17. Nonargument (conditional).
- 18. Nonargument (illustration).
- \*19. Nonargument (conditional).
- 20. Argument. *Conclusion:* The U.S. policy of nuclear deterrence was immoral.
- 21. Nonargument (conditional).
- \*22. Argument. *Conclusion:* The good don't always die young.
- 23. Nonargument (explanation).
- 24. Argument. *Conclusion:* Some metals are liquids at room temperature.
- 25. Argument. *Conclusion:* Stealing is wrong simply because society disapproves of it.

### Exercise 2.2

#### Part A: Identifying Arguments

- \*1. 1. The defendant is insane.  
So, 2. The defendant is not guilty.
- 2. Not an argument.
- 3. 1. You can protest against malice, you can unmask it or prevent it by force.  
2. Malice always makes men uncomfortable, if nothing worse.  
So, 3. Malice always contains the seeds of its own destruction. (from 2)  
4. Neither protests nor force is of any avail against folly, and it is never amenable to reason.  
So, 5. There is no defense against folly. (from 4)  
So, 6. Folly is a more dangerous enemy to the good than malice. (from 1, 3, and 5)
- \*4. There is room for disagreement here as to whether the passage is an argument. If it is an argument, the textbook form would be along these lines:

1. The intelligence can only be led by desire.
  2. For there to be desire, there must be pleasure and joy in the work done.
  - So, 3. Will power, the kind that, if need be, makes us set our teeth and endure suffering, has practically no place in study.
5. 1. People fear death more than they fear life imprisonment.
- So, 2. The death penalty is a greater deterrent than life imprisonment.
6. 1. There are many kinds of human experiences.
2. The task of science is to describe the behavior of the material world.
- So, 3. Science can deal only with a portion of the kinds of human experiences. (from 2)
- So, 4. Science does not deal with the whole of life. (from 1 and 3)
- \*7. 1. Affirmative action involves giving a less qualified person the job.
2. The most qualified person deserves the job.
- So, 3. Affirmative action is unjust.
8. Not an argument.
9. 1. If alcoholism is a disease, then it is treated medically.
2. But alcoholism is not treated medically.
- So, 3. Alcoholism is not a disease.
- \*10. Not an argument.
11. Not an argument.
12. 1. Most murderers, at the time when they commit the act, are so full of hate or anger that they are completely unconcerned with the long-term consequences of their actions.
- So, 2. We cannot assert with confidence that the death penalty deters murder.
- \*13. 1. The statement "God cannot be proved" may mean that God's existence cannot be proved beyond the shadow of a doubt, but it may also mean, and often does mean, that there is no valid evidence for the existence of God.
2. These two meanings differ.
- So, 3. The statement "God cannot be proved" is fundamentally ambiguous.
14. 1. Pacifists are either deeply insightful or greatly mistaken.
2. If pacifists are deeply insightful, then it is immoral for a policeman to kill a sniper who is firing at schoolchildren.
3. It is not immoral for a policeman to kill a sniper who is firing at schoolchildren.
- So, 4. Pacifists are not deeply insightful.
- So, 5. Pacifists are greatly mistaken.
15. Not an argument.
- \*16. 1. Empirical data are scientific.
2. Only what can in principle be shown false is scientific.
- So, 3. Empirical data can in principle be shown false.
17. Not an argument.
18. 1. The probability of life evolving from nonlife is so low as to be in the category of the miraculous.
2. If evolution is true, then there are "missing links."
3. The fossil record contains no missing links.
- So, 4. There are no "missing links." (from 3)
- So, 5. The theory of evolution is highly questionable. (from 1, 2, and 4)
- \*19. Not an argument.

20. 1. Faculty salaries differ markedly by discipline.  
 So, 2. If colleges gave equal pay for equal work, then they would either (a) go broke paying all faculty high salaries or (b) demoralize the more highly paid faculty with severe pay cuts.  
 3. (a) would be disastrous, and so would (b).  
 So, 4. If the principle of equal pay for equal work were applied to colleges, it would have disastrous consequences.  
 So, 5. The principle of equal pay for equal work is untrue.

## Part B: More Identifying Arguments

- \*1. Not an argument.
2. 1. All literary study is an education in how to picture and understand human situations.  
 So, 2. The most essential and fundamental aspect of culture is the study of literature.
3. 1. Every phrase and word embodies some habitual idea of men and women as they ploughed their fields, tended their homes, and built their cities.  
 So, 2. Language is the incarnation of the mentality of the race which fashioned it.  
 So, 3. There are no true synonyms between words and phrases in different languages.
- \*4. 1. A man in a state of profound hypnosis can be made to remember events that have long vanished from his normal mind and that he is quite unable to recover by ordinary voluntary effort.  
 So, 2. Our minds contain elements which are normally inaccessible to us.
5. Not an argument.
6. 1. If God exists, then a perfect being exists.  
 2. If God exists, then God created the world.  
 3. God exists.  
 So, 4. A perfect being created the world. (from 1, 2, and 3)  
 5. If a perfect being created the world, then we live in the best of all possible worlds.  
 So, 6. We live in the best of all possible worlds. (from 4 and 5)
- \*7. 1. If each culture should be judged only by its own moral standards, then no culture's moral standards should be criticized.  
 2. Some cultures permit slavery, cannibalism, and/or the oppression of women.  
 So, 3. The moral standards of some cultures should be criticized. (from 2)  
 So, 4. It is not the case that each culture should be judged only by its own moral standards.
8. 1. Good fiction is written more often than it is read.  
 So, 2. As long as the appearance of a really fine work of fiction is so rare on the best-seller lists, the nation's teachers of English have no right to be complacent about their service to literature.  
 So, 3. The blame for the failure to study literature in a technical way may be shared by teachers and students.
9. Not an argument.
- \*10. Not an argument.
11. 1. Either murderers are rational enough to be deterred by the death penalty or they are not.  
 2. If they are not rational enough to be deterred by the death penalty, then the death penalty is not necessary.  
 3. If murderers are rational enough to be deterred by the death penalty, then they are rational enough to be deterred by life imprisonment.  
 4. If murderers are rational enough to be deterred by life imprisonment, then capital punishment is not necessary.  
 So, 5. The death penalty is not necessary.  
 6. If the death penalty is not necessary, then it should be abolished.  
 So, 7. The death penalty should be abolished. (from 5 and 6)

12. There is room here for disagreement about whether the passage is an argument. If it is an argument, the textbook form would be along these lines:
1. If a person does not perform good actions (just actions, temperate actions), then he or she will not become good (just, temperate, etc.).
  2. Philosophizing about being good will not produce a healthy state of the soul any more than merely listening to a doctor's advice but not taking it will produce a healthy state of the body.
- So, 3. A good (just, temperate, etc.) person becomes good by doing what is good (just, temperate, etc.).
- \*13.
1. Deductive reasoning cannot have certainty about its premises.
  2. Inductive reasoning cannot have certainty about its conclusions.
- So, 3. Absolute proof is something which the human being does not and cannot have.
- 14.
1. If a woman has an unlimited right over what happens in and to her own body, then she has the right to drink heavily during pregnancy.
  2. If drinking alcohol heavily during pregnancy causes birth defects, then a woman does not have the right to drink heavily during pregnancy.
  3. Drinking alcohol heavily during pregnancy causes birth defects.
- So, 4. A woman does not have the right to drink heavily during pregnancy. (from 2 and 3)
- So, 5. A woman does not have an unlimited right over what happens in and to her own body. (from 1 and 4)
- 15.
1. Children are not yet moral agents until they act in a nonracist fashion even when discipline (rewards and punishments) is not in view, and act in this way by acting on the principle of love and respect.
- So, 2. Rewards and punishments do not by themselves yield the moral life.
- \*16.
1. The civil disobedient withholds taxes or violates state laws knowing he is legally wrong but believing he is morally right.
  2. M. L. King led his followers in violation of state laws he believed were contrary to the federal Constitution.
  3. Supreme Court decisions generally upheld King's many actions.
- So, 4. M. L. King should not be considered a true civil disobedient.
- 17.
1. Youth is imaginative.
  2. If imagination is strengthened by discipline, the energy of imagination can be preserved through life.
  3. The tragedy of the world is that those who are imaginative have but slight experience, and those who are experienced have feeble imaginations.
- So, 4. The task of a university is to weld together imagination and experience.
- 18.
1. Terrorism is the threat or use of violence against noncombatants for political purposes.
  2. In ordinary war, the deaths of civilians are side effects of military operations directed against military targets.
  3. In terrorist operations, the civilian is the direct and intentional target of attack.
- So, 4. George Washington was not a terrorist; but neither were the truck-bombers who attacked the Marine compound in Beirut in 1983; on the other hand, when states use murder and torture to crush political dissent, they engage in terrorism.
- \*19. Not an argument.
- 20.
1. Segregation gives the segregator a false sense of superiority, and the segregated a false sense of inferiority.
- So, 2. Segregation distorts the soul and damages the personality.
- So, 3. All segregation statutes are unjust.
4. Segregation ends up relegating persons to the status of things.
- So, 5. Segregation is not only politically, economically, and sociologically unsound, but it is morally wrong and sinful.
- So, 6. I (Martin Luther King, Jr.) can (rightly) urge men to disobey segregation.

## Exercise: Appendix to Chapter 2

### Part A: Argument Diagrams

- \*1. <sup>1</sup>[Photography makes representational art obsolete] because <sup>2</sup>[no one, not even the best artist, can be more accurate than a camera.]

2  
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1

2. In spite of the fact that <sup>1</sup>[electrons are physical entities,] <sup>2</sup>[they cannot be seen.] For <sup>3</sup>[electrons are too small to deflect photons (i.e., light particles).] Hence, <sup>4</sup>[electrons are invisible.]

3  
↓  
2

3. <sup>1</sup>[There is a healthy kind of individualism – the kind that is resistant to group tyranny. . . .] But <sup>2</sup>[capitalist individualism is not concerned about promoting the growth of the person into emotional, intellectual, ethical and cultural fullness;] rather, <sup>3</sup>[it fosters the development of individual traits only so far as these are useful for maximizing profits.] Thus, ironically, <sup>4</sup>[capitalist individualism turns into a group despotism under which personal becoming is sacrificed to the external tyrannies of material gain.]

$\frac{2 + 3}{\downarrow}$   
4

- \*4. While <sup>1</sup>[there is much wickedness in the world,] <sup>2</sup>[there is also much good.] For <sup>3</sup>[if there is evil, then there must be good,] since <sup>4</sup>[good and evil are relative, like big and small.] And no one will deny that <sup>5</sup>[evil exists.]

4  
↓  
 $\frac{3 + 5}{\downarrow}$   
2

5. Since <sup>1</sup>[major historical events cannot be repeated,] <sup>2</sup>[historians aren't scientists.] After all, <sup>3</sup>[the scientific method necessarily involves events (called "experiments") that can be repeated.]

$\frac{3 + 1}{\downarrow}$   
2

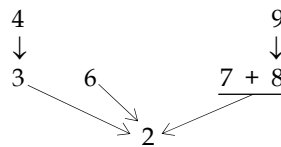
6. <sup>1</sup>[The scientific method doesn't necessarily involve experimentation.] For <sup>2</sup>[if anything is a science, astronomy is.] But <sup>3</sup>[the great cosmic events observed by astronomers cannot be repeated.] And, of course, <sup>4</sup>[an experiment is by definition a repeatable event.]

$\frac{4 + 2 + 3}{\downarrow}$   
1

\*7. <sup>1</sup>[There is no better way to arouse the American citizen than to order him around or to tell him what to think.] Although <sup>2</sup>[there are many people in this country who would like to organize us more thoroughly and tidy up the freedom we have by a little more control,] <sup>3</sup>[we still reserve the personal right to plunge our own way into our own mistakes and discoveries, in art, philosophy, education, or politics. . . .]



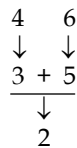
8. Although <sup>1</sup>[people often say that beauty is in the eye of the beholder,] there are various reasons for thinking that <sup>2</sup>[beauty is objective.] First, <sup>3</sup>[there is wide agreement about natural beauty.] After all, <sup>4</sup>[virtually everyone finds the Grand Canyon, Niagara Falls, and the Rocky Mountains beautiful.] Second, even though <sup>5</sup>[art critics frequently disagree with one another,] <sup>6</sup>[they do defend their views with principled reasoning.] Third, <sup>7</sup>[art critics tend to agree among themselves about which historical works of art are truly great.] And <sup>8</sup>[this agreement is no mere coincidence] since <sup>9</sup>[the critics are not, in general, reluctant to disagree with one another.]



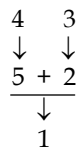
9. <sup>1</sup>[In the new order, when voters are concerned about what benefits the elected officer will provide them, promises, hypocrisy, deceit, log-rolling and clout are fast becoming the characteristics of electability. As Harold Blake Walker noted, <sup>2</sup>[of 21 Congressmen linked in one way or another with political wrongdoing or personal scandal prior to the 1976 election, 19 were re-elected.]



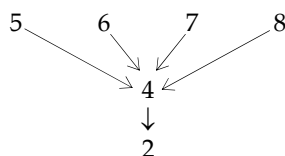
\*10. Despite the fact that <sup>1</sup>[contraception is regarded as a blessing by most Americans,] <sup>2</sup>[using contraceptives is immoral.] For <sup>3</sup>[whatever is unnatural is immoral] since <sup>4</sup>[God created and controls nature.] And <sup>5</sup>[contraception is unnatural] because <sup>6</sup>[it interferes with nature.]



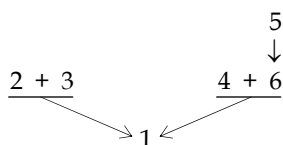
11. Of course, <sup>1</sup>[of all the various kinds of artists, the fiction writer is most deviled by the public.] <sup>2</sup>[Painters and musicians are protected somewhat] since <sup>3</sup>[they don't deal with what everyone knows about], but <sup>4</sup>[the fiction writer writes about life], and so <sup>5</sup>[anyone living considers himself an authority on it.]



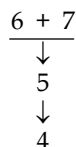
12. While <sup>1</sup>[some people seem to be under the impression that humans are making moral progress,] I submit that <sup>2</sup>[the 20th century is a movement backwards into violence and cruelty.] For in spite of the fact that <sup>3</sup>[science and technology have developed rapidly,] <sup>4</sup>[the greatest mass murders in history have all occurred in this century.] <sup>5</sup>[Millions died on the battlefields of World Wars I and II.] <sup>6</sup>[Six million Jews died in Nazi prison camps.] And <sup>7</sup>[from 1917 until the end of Stalin’s reign, 20 million people died in Soviet work camps.] <sup>8</sup>[More recently, we have Pol Pot’s slaughter of the Cambodians as well as the atrocities in the former Yugoslavia.]



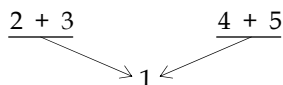
- \*13. <sup>1</sup>[There is no life after death.] For <sup>2</sup>[what’s real is what you can see, hear, or touch.] And <sup>3</sup>[you cannot see, hear, or touch life after death.] Furthermore, <sup>4</sup>[life after death is possible only if humans have souls.] But <sup>5</sup>[the notion of a soul belongs to a prescientific and outmoded view of the world.] And hence, <sup>6</sup>[the belief in souls belongs to the realm of superstition.]



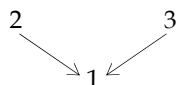
14. <sup>1</sup>[Politicians are forever attributing crime rates to *policies*]—<sup>2</sup>[if the crime rates are decreasing, to their own “wise” policies;] <sup>3</sup>[if the crime rates are increasing, to the “failed” policies of their opponents.] But the fact is that <sup>4</sup>[crime rates are best explained in terms of demographics.] For <sup>5</sup>[crime is primarily a young man’s game.] <sup>6</sup>[Whenever there is a relatively large number of young men between the ages of 15 and 30, the crime rates are high.] And <sup>7</sup>[whenever this part of the population is relatively small, the crime rates are relatively low.]



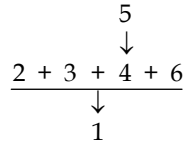
15. <sup>1</sup>[A liberal arts education is vital to any great nation.] Why? For one thing, <sup>2</sup>[a liberal arts education provides the best possible skills in communication.] And <sup>3</sup>[without good communication at all levels, a nation cannot move forward.] For another, <sup>4</sup>[work is not the whole of life.] And it is well known that <sup>5</sup>[a liberal arts education increases one’s capacity to enjoy life by substantially broadening the range of one’s interests.]



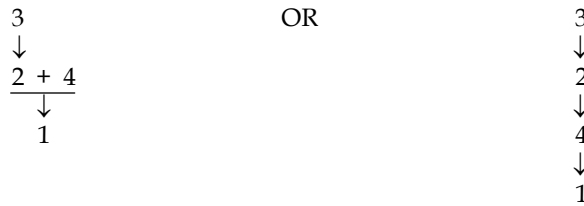
- \*16. <sup>1</sup>[For beginners, portrait painting is perhaps the most difficult branch of art to understand and enjoy *as painting*.] <sup>2</sup>[If we happen to know, either from personal acquaintance or from photographs, what the subject of a portrait is actually like in physical appearance, we are inclined to think more about whether it is a good likeness than whether it is a good painting.] And <sup>3</sup>[if it is a portrait of someone who lived long ago but is not in the history books, we may think that because the subject is of no interest to us the painting must also be without interest.]



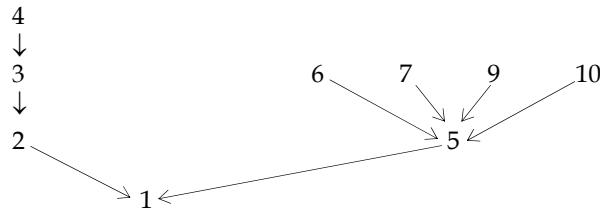
17. <sup>1</sup>[Psychotherapy is a religion for many Americans.] After all, <sup>2</sup>[fewer and fewer Americans regularly attend church, synagogue, or temple], but <sup>3</sup>[more and more see their psychotherapists regularly.] And what do they talk about with their psychotherapists? <sup>4</sup>[They talk about their inner lives, or, in other words, about the state of their souls!] For <sup>5</sup>[they speak of strange impulses, confess dark thoughts, and put their deepest fears into words.] And because <sup>6</sup>[only 50 years ago these same outpourings would have occurred only in the presence of a priest or pastor], it seems fair to say that <sup>7</sup>[psychotherapy is indeed a religion for many Americans.]



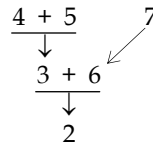
18. <sup>1</sup>[The human sciences have made a major contribution to cynicism about human greatness, especially as they treat the subjects of motivation and freedom.] <sup>2</sup>[We are told that human choice is not what it appears to be.] <sup>3</sup>[If we accept the sophistications of some views of psychology, we know that what appears to be heroic—for example, a man or woman’s act of courage in saving another’s life—is, in fact, a desperate attempt to win the approval of a long-dead parent who had withheld love in the childhood years.] What, then, has become of the hero? <sup>4</sup>[He or she is transformed in our minds into a neurotic, and with a slight turn of the mind, admiration is changed to pity and condescension.]



- \*19. <sup>1</sup>[Violence as a way of achieving racial justice is both impractical and immoral.] <sup>2</sup>[It is impractical] because <sup>3</sup>[it is a descending spiral ending in destruction for all.] <sup>4</sup>[The old law of an eye for an eye leaves everybody blind.] <sup>5</sup>[It is immoral] because <sup>6</sup>[it seeks to humiliate the opponent rather than win his understanding;] <sup>7</sup>[it seeks to annihilate rather than to convert.] <sup>8</sup>[Violence is immoral] because <sup>9</sup>[it thrives on hatred rather than love.] <sup>10</sup>[It destroys community and makes brotherhood impossible.]



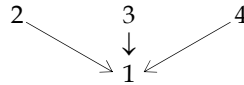
20. Although <sup>1</sup>[God created all *dependent* beings,] <sup>2</sup>[God did not create everything.] For <sup>3</sup>[numbers have existed from all eternity.] <sup>4</sup>[God has existed from all eternity,] and <sup>5</sup>[there has always been exactly *one* God.] Moreover, <sup>6</sup>[nothing that has existed from all eternity is created] because <sup>7</sup>[each cause must precede its effect.]



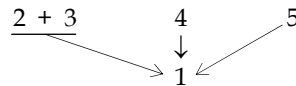


## Part B: More Argument Diagrams

- \*1. <sup>1</sup>[John and Robert Kennedy and Martin Luther King were, like them or not, this country's last true national leaders.] <sup>2</sup>[None of John Kennedy's successors in the White House has enjoyed the consensus he built,] and <sup>3</sup>[every one of them ran into trouble, of his own making, while in office.] In the same way, <sup>4</sup>[none of this country's national spokespeople since Robert Kennedy and Dr. King has had the attention and respect they enjoyed.]



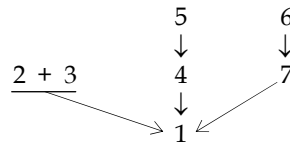
2. <sup>1</sup>[If . . . our government is to function it must have dissent.] <sup>2</sup>[Only totalitarian governments insist upon conformity] and <sup>3</sup>[they – as we know – do so at their peril.] <sup>4</sup>[Without criticism abuses will go unrebuked;] <sup>5</sup>[without dissent our dynamic system will become static.]



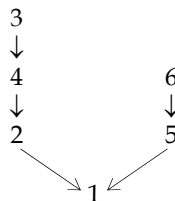
3. <sup>1</sup>[It is because of the ideal of freedom that we have organized our particular form of democracy,] since <sup>2</sup>[the political structure of any society is . . . formed to support the demands which the people make for the attainment of certain values.] <sup>3</sup>[Because of . . . the variety and richness of the social and natural resources with which the country has abounded, in order to realize the full potential which has always existed here, we have needed the idea of freedom as a social instrument to be used for our full development.]



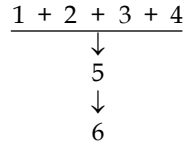
- \*4. For a variety of reasons, <sup>1</sup>[private colleges are in trouble.] First, <sup>2</sup>[private colleges have repeatedly increased tuition well beyond the rate of inflation.] And <sup>3</sup>[any business that increases prices in such a fashion is likely to run into trouble.] Second, <sup>4</sup>[many people are beginning to question the value of higher education] since <sup>5</sup>[a college degree no longer guarantees an attractive salary.] Third, rightly or wrongly, <sup>6</sup>[the American public believes that colleges have not practiced good financial management,] and hence <sup>7</sup>[the public thinks that tuition dollars often subsidize inefficiency.]



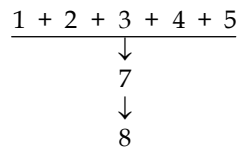
5. Not an argument. Merely a report of a series of events and their consequences.
6. <sup>1</sup>[The legalization of drugs is neither unwise nor immoral.] <sup>2</sup>[It is not unwise] because, <sup>3</sup>[by legalizing drugs, we would eliminate the illegal drug trade.] Hence, <sup>4</sup>[by legalizing drugs, we would rid our nation of all the violence that goes along with the illegal drug trade.] Furthermore, <sup>5</sup>[the legalization of drugs is not immoral] since <sup>6</sup>[it can be combined with a massive program of moral education.]



- \*7. <sup>1</sup>[The Peloponnesian War deeply altered the future course of Greek history.] <sup>2</sup>[By changing the movement of men, the geographical distribution of genes, values, and ideas, it affected later events in Rome, and through Rome, all Europe.] <sup>3</sup>[In turn, in the tightly wired world of today, . . . Europeans influence Mexicans and Japanese alike.] <sup>4</sup>[Whatever trace of impact the Peloponnesian War left on the genetic structure, the ideas, and the values of today's Europeans is now exported by them to all parts of the world.] Thus <sup>5</sup>[today's Mexicans and Japanese feel the distant, twice-removed impact of that war even though their ancestors, alive during its occurrence, did not.] In this way, <sup>6</sup>[the events of the past, skipping as it were over generations and centuries, rise up to haunt and change us today.]

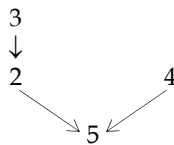


8. <sup>1</sup>[During the 1930s, there were 1667 executions in the United States.] <sup>2</sup>[During the 1940s, there were 1284.] <sup>3</sup>[During the 1950s, there were 717.] And <sup>4</sup>[during the rehabilitation-mad 1960s, the numbers plummeted to 191.] <sup>5</sup>[Then came the *Furman v. Georgia* decision in 1972, which resulted in a grand total of 3 executions during the 1970s.] While <sup>6</sup>[the numbers began to creep back up in the 1980s, with a total of 117 executions in that decade,] <sup>7</sup>[we are forced to conclude that America has not had a serious practice of capital punishment since about 1960.] Therefore, <sup>8</sup>[it is not true that America's currently high murder rate proves the ineffectiveness of the death penalty.]



Note: Statement (6) is irrelevant to the argument and thus I have excluded it from the diagram.

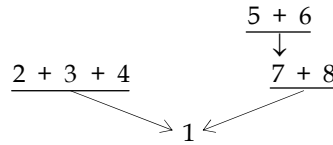
9. <sup>1</sup>[It is difficult, and you may be sure that we know it, for us to oppose your power and fortune, unless the terms be equal.] Nevertheless <sup>2</sup>[we trust that the gods will give us fortune as good as yours,] because <sup>3</sup>[we are standing for what is right against what is wrong;] and <sup>4</sup>[as for what we lack in power, we trust that it will be made up for by our alliance with the Spartans. . . .] <sup>5</sup>[Our confidence, therefore, is not so entirely irrational as you think.]



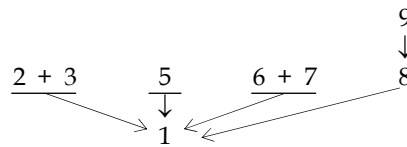
Note: Statement (1) is irrelevant to the argument and thus I have excluded it from the diagram.

- \*10. Not an argument. (Note: The passage is an explanation—it explains why the Belgae are the bravest of the Gauls.)
11. Two distinct lines of reasoning support the thesis that <sup>1</sup>[the physical universe is temporally finite.] First, <sup>2</sup>[the galaxies are speeding away from each other and from a central point.] Moreover, <sup>3</sup>[there isn't enough matter in the universe to reverse this process.] And <sup>4</sup>[if we trace this process back, it appears that the universe began with a "bang" some 15 to 20 billion years ago.] Second, <sup>5</sup>[if the universe is temporally infinite, it must have gone through an infinite number of cycles (each Big Bang followed by a Big Crunch).] But according to physicists, <sup>6</sup>[each Big Bang/Big Crunch cycle would cause a decrease in the overall

amount of available energy.] Thus, <sup>7</sup>[if the universe were temporally infinite, there would now be no energy available at all.] But obviously, <sup>8</sup>[lots of energy is still available.]

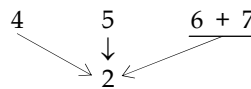


12. <sup>1</sup>[Besides the natural and the human law it was necessary for the directing of human conduct to have a divine law.] And this for four reasons. First, because <sup>2</sup>[it is by law that man is directed how to perform his proper acts in view of his last end. . . .] And since <sup>3</sup>[man is ordained to an end of eternal happiness which exceeds man's natural ability, . . .] therefore <sup>4</sup>[it was necessary that, in addition to the natural and the human law, man should be directed to his end by a law given by God.] Secondly, because, <sup>5</sup>[by reason of the uncertainty of human judgment, . . . different people form different judgments on human acts. . . .] Thirdly, because <sup>6</sup>[man . . . is not competent to judge of interior movements, that are hidden, but only of exterior acts which are observable;] and yet <sup>7</sup>[for the perfection of virtue it is necessary for man to conduct himself rightly in both kinds of acts. . . .] Fourthly, because, . . . <sup>8</sup>[human law cannot punish or forbid all evil deeds,] since, <sup>9</sup>[while aiming at doing away with all evils, it would do away with many good things. . . .]

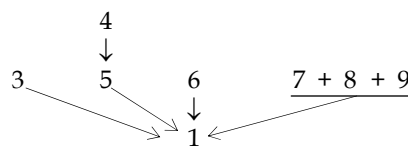


Note: Statement (4) repeats the conclusion, and so we could replace 1 with 4 in the diagram.

- \*13. While <sup>1</sup>[colleges and universities have come under heavy criticism in the last decade,] <sup>2</sup>[they will undoubtedly remain a vital force in American social life for generations to come.] For one thing, although <sup>3</sup>[both the public and the media seem to have a thirst for stories about people who've gotten rich or famous with only a high school degree,] the fact remains that <sup>4</sup>[a college or university degree is the surest way to increase one's social and occupational status.] For another, <sup>5</sup>[college grads as a group indicate higher levels of satisfaction with their lives than do those with lesser educational attainments.] Finally, <sup>6</sup>[you show me a nation with a weak system of higher education and I'll show you a nation with little power.] And <sup>7</sup>[Americans will never willingly accept a position of relative powerlessness among the nations of the world.]

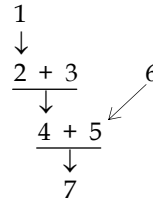


14. Not an argument; rather, a statement or report of observations.
15. <sup>1</sup>[The war in Vietnam was immoral,] for a variety of reasons. First, although <sup>2</sup>[America's leaders insisted that the war was needed to stop the expansion of communism,] <sup>3</sup>[there was no good reason to suppose that communism would have spread from Vietnam to any place else significant.] Second, <sup>4</sup>[the war in Vietnam was a civil war.] Hence <sup>5</sup>[North Vietnam was no more wrong to fight for union with South Vietnam than the northern states were wrong to fight for union with the southern states during the American Civil War.] Third, <sup>6</sup>[in Vietnam, the Americans did a lot of indiscriminate killing through bombing and massive artillery strikes.] Finally, <sup>7</sup>[during the war, the Americans (and their allies) killed some 600,000 Vietnamese.] <sup>8</sup>[Only the achievement of a great good could justify so many deaths,] but <sup>9</sup>[no great good was achieved.]

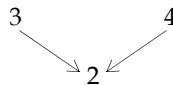


\*16. Not an argument; rather, a series of unsupported assertions, or exhortations.

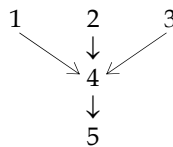
17. Since <sup>1</sup>[God is love,] <sup>2</sup>[he must always have had an object for his love.] Since <sup>3</sup>[the world did not exist from everlasting, but was created at a certain moment in time,] <sup>4</sup>[God must have had another object for his love in the countless aeons before this world was made.] <sup>5</sup>[If there is an eternal Lover, there must be an eternal Beloved,] since <sup>6</sup>[love without an object is an abstraction.] <sup>7</sup>[The Son, therefore, must have existed eternally as the object of the Father's love.]



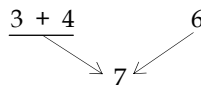
18. Although <sup>1</sup>[the great majority of homicides in the United States involve assailants of the same race or ethnic group,] <sup>2</sup>[current evidence suggests that socioeconomic status plays a much greater role in explaining racial and ethnic differences in the rate of homicide than any intrinsic tendency toward violence.] For example, <sup>3</sup>[Centerwall has shown that when household crowding is taken into account, the rate of domestic homicide among blacks in Atlanta, Georgia, is no higher than that of whites living in similar conditions.] Likewise, <sup>4</sup>[a recent study of childhood homicide in Ohio found that once cases were stratified by socioeconomic status, there was little difference in race-specific rates of homicide involving children 5 to 14 years of age.]



\*19. <sup>1</sup>[The only proof capable of being given that an object is visible, is that people actually see it.] <sup>2</sup>[The only proof that a sound is audible, is that people hear it;] and <sup>3</sup>[so of the other sources of our experience.] In like manner, I apprehend, <sup>4</sup>[the sole evidence it is possible to produce that anything is desirable, is that people do actually desire it.] Thus, <sup>5</sup>[no reason can be given why the general happiness is desirable, except that each person . . . desires his own happiness.]



20. <sup>1</sup>[There is an undoubted psychological easing of standards of truthfulness toward those believed to be liars.] It is simply a fact, for instance, that <sup>2</sup>[one behaves differently toward a trusted associate and toward a devious, aggressive salesman.] But <sup>3</sup>[this easing of standards merely explains the difference in behavior;] <sup>4</sup>[it does not by itself justify lies to those one takes to be less than honest.] <sup>5</sup>[Some of the harm the liar may have done by lying may be repaid by the harm a lie can do to him in return.] <sup>6</sup>[But the risks to others, to general trust, and to those who lie to liars in retaliation merely accumulate and spread thereby.] <sup>7</sup>[Only if there are separate, and more compelling, excuses, can lying to liars be justified.]



*Note:* Statements (1), (2), and (5) are irrelevant to the argument and thus I have excluded them from the diagram.