

ARGUMENTS

1. An argument is a collection of propositions with one proposition, the conclusion, following from the other propositions, the premises. Inference is a process of arriving at a conclusion by means of other propositions and the relationship they bear to each other.
2. **DEDUCTIVE ARGUMENTS:** Arguments in which the arguer maintains that the argument is valid. The arguer also hopes that the argument is sound.
3. **VALIDITY:** An argument is valid if and only if given the truth of its premises, the conclusion must follow. Stated another way, a valid argument is one in which it is impossible for the conclusion to be false and the premises true.
4. Two ways for a deductive argument to go wrong: Either (i) an argument will have false premises, or (ii) the conclusion can fail to follow from true premises.
5. **INVALID ARGUMENTS:** An invalid argument is one in which the conclusion does not follow from the premises.
6. **SOUNDNESS:** A sound argument is one in which both the premises are true and the argument is valid.
7. **UNSOUND ARGUMENTS:** An unsound argument is one in which either at least one of the premises is false or the argument is invalid.
8. All sound arguments are valid. Some valid arguments are unsound. All invalid arguments are unsound. Some unsound arguments are valid.
9. **INDUCTIVE ARGUMENTS:** Arguments in which the arguer maintains that it is improbable that the conclusion is false given the premises are true. The premises of inductive arguments are about past instances. The conclusions of inductive arguments make claims about present and future cases based on the past instances stated in the premises. Inductive arguments are not deductively valid. Inductive arguments admit of degrees of strength and weakness.
10. **RATIONAL PERSUASIVENESS:** An argument is rationally persuasive if (i) a person has more reason to believe the premises are true rather than false; (ii) the premises are relevant to the conclusion; and (iii) the premises provide adequate evidence or grounds for the truth of the conclusion (deductively or inductively) given the truth of the premises. Deductively sound arguments are always rationally persuasive.

EXAMPLES (Deductive Arguments)

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| (a) | 1. All teachers have beards.
2. Schmid is a teacher.
3. Therefore, Schmid has a beard. | (d) | 1. Abortion is wrong.
2. Thus, abortion is wrong. |
| (b) | 1. All teachers are younger than 30.
2. Schmid is a teacher.
3. Schmid is younger than 30. | (e) | 1. If Soc. is human, then Soc. is mortal.
2. Socrates is human.
3. Socrates is mortal. |

- (c) 1. All humans are mortal.
2. Socrates is human.
3. Therefore, Socrates is mortal.
- (f) 1. All spiders have ten legs.
2. All ten-legged creatures have wings.
3. All spiders have wings.
- (g) 1. If I owned all the gold in Fort Knox, then I would be wealthy.
2. I do not own all the gold in Fort Knox.
3. Therefore, I am not wealthy.
- (h) 1. Some philosophy professors are wealthy.
2. Schmid is a philosophy professor.
3. Schmid is wealthy.
- (i) 1. Some humans teach philosophy.
2. Schmid is a human.
3. Schmid teaches philosophy.
- (j) 1. No one gets an A in Philosophy unless he or she works hard.
2. Waldo works hard.
3. Waldo gets an A.
- (k) 1. If one directly kills an innocent, then one commits murder.
2. Abortion directly kills an innocent.
3. Abortion is murder.
4. Murder is morally impermissible.
5. Therefore, abortion is morally impermissible.

CONCLUSION-INDICATORS

therefore	hence	thus
so	accordingly	in consequence
consequently	proves that	as a result
for this reason	for these reasons	it follows that we may
infer	I conclude that	which shows that
which means that	which entails that	which implies that
which allows us to conclude that	which points to the conclusion that	

PREMISE-INDICATORS

since	because	for	in view of the fact that
as	follows from	as shown by	may be deduced from
inasmuch as	as indicated by	the reason is that	may be derived from
for the reason that	may be inferred from		