

Building Mental Muscle (power to conceptualize) through Logic Exercises

Lesson 2a – Induction and Deduction

A. Review of induction and deduction.

1. The two basic kinds of reasoning are *inductive* and *deductive*.
2. Inductive reasoning reasons from particular premises (e.g., “I’m mortal” and “You’re mortal” and “He’s mortal” and “She’s mortal”), usually to a more general or universal conclusion (e.g., “All men are mortal”).
3. Deductive reasoning reasons from at least one general, or universal premise (e.g., “All men are mortal”) usually to a more particular conclusion (e.g., “I am mortal”).
4. Inductive reasoning yields only probability, not certainty. (It is not certain that all men are mortal merely on the basis that four men, or 5 million, are.)
5. Deductive reasoning when correct, yields certainty. (It is certain that if all men are mortal, and if I am a man, then I am mortal.)
6. Deductive and inductive arguments

DEDUCTION

From general to particular
from general to general
from cause to effect
a priori reasoning
philosophical reasoning
necessary conclusion

INDUCTION

from particular to general
from particular to particular
from effect to cause
a posteriori reasoning
scientific reasoning
probable conclusion

B. Exercises. Identify which of the following are deductive and which are inductive.

1. A Tulsa University study of 1000 students shows a dramatic increase in grades after their becoming Christians; therefore we conclude that conversion to Christianity helps your grade point average.
2. According to the Bible, all men need Christ, and you are a man. So you need to trust Christ.
3. Robert is a Christian and Christians don’t know logic, so it is obvious that Robert doesn’t know logic.
4. The Bible is historically accurate and anything that is historically accurate is trustworthy. So the Bible is trustworthy.
5. I know the Bible is trustworthy because of three things: it never contradicts itself, it doesn’t contradict other historical writings, and the manuscript evidence is greater than any other writings of ancient times.

In the Logos, *Pastor Don*