

Chapter 3 – Thinking and reasoning with categories

Getting familiar with... testing categorical arguments with Venn diagrams

Test each of the following arguments for validity using the Venn diagram method.

1. All frigs are pracks. All pracks are dredas. So, all frigs are dredas.
2. Some birds are white. White things are not black. Therefore, some birds are not black.
3. A few rock stars are really nice people. Alice Cooper is a rock star.
Hence, Alice Cooper is a really nice person.
4. Democrats are liberals. Some liberals are not environmentalists.
Therefore, some Democrats are environmentalists.
5. All CFCs (chlorofluorocarbons) deplete ozone molecules. CFCs are things that are produced by humans. Therefore, some things produced by humans deplete ozone molecules.
6. Black holes produce intense gravity. We haven't been able to study any black holes closely. Therefore, we haven't been able to study closely anything that produces intense gravity.
7. No drugs that can be used as medical treatment should be outlawed.
Marijuana can be used as a medical treatment. Thus, marijuana should not be outlawed.
8. No genetically engineered foods are subsidized by the government.
Some traditional foods are not subsidized by the government. Hence, some traditional foods are genetically engineered foods.
9. People who trust conspiracy theories are not good witnesses. A few clinically sane people trust conspiracy theories. So, some clinically sane people are not good witnesses.
10. Some lies are not immoral acts. Some immoral acts are fairly harmless. So, some lies are fairly harmless.