Logic Chapter 1 Practice Test:

True / False:

Mark each of the following statements as "True or False."

1. True   or   False: The terms "argument" and "disagreement" mean the same thing.

2. True   or   False: No arguments have more than two premises.

3. True   or   False: The best way to determine what the premises and conclusion are in an argument is to look for indicator words.

4. True   or   False: It is possible for a sound argument to have a false conclusion.

5. True   or   False: It is possible for a cogent argument to have a false conclusion.

6. True   or   False: Some deductive arguments are weak, in the technical sense.

7. True   or   False: Some inductive arguments are valid, in the technical sense.

8. True   or   False: Every statement has a truth value.

9. True   or   False: The truth values for statements in classical logic are: true, false, and unknown.

10. True   or   False: When determining whether or not an argument is valid or invalid, you are evaluating the truth or falsity of the premises.

Fill in the Blank:

Fill in the blank with the appropriate conditional relationship. That is, write "necessary" or "sufficient" in the blanks below as appropriate.

1. Being a player for the St. Louis Cardinals is a _____ condition for being a Major League baseball player.

2. Being a monkey is a _____ condition for being an orangutan.

3. Being a house is a _____ condition for being a mansion.

4. Being a summer blockbuster is a _____ condition for being a movie.

5. Being a mammal is a _____ condition for being a bottlenose dolphin.

6. Being a Chevy Camaro is a _____ condition for being a sports car.

7. Being a National Park is a _____ condition for being a public space.

8. Being a newspaper is a _____ condition for being the New York Times.

9. Being a cable news station is a _____ condition for being the Fox News Channel.

10. Being an American Girl Doll is a _____ condition for being a collectible toy.

Argument Identification:

For each of the following passages, determine whether it is an argument of a non-argument. Circle the appropriate answer and then, if the passage is an argument, circle the statement in the argument that is the conclusion.

1. Argument   or   Non-argument:

   There are two kinds of people in this world: people who annoy me and people that I like. If you call me and try to sell me something, you are in the first group. If you follow me too closely when I am driving down the road, you are in the first group. If you speak too loudly to me, you are in the first group. Come to think of it, there aren't many people in the second group.

2. Argument   or   Non-argument:

   The greatest happiness comes through our relationships with other persons. Human beings are fundamentally social. No matter how much money or stuff we have, if we do not have people to share in enjoyment of that stuff, we will not be truly happy. Scientific studies have shown that people with the strongest long-term relationships are the happiest. This is powerful evidence of the value of relationships.

3. Argument   or   Non-argument:

   If Spain was once ruled by and Islamic government, then the architecture in Spain is probably a mixture of Islamic and Christian influences. Spain was controlled by Islamic leaders for many centuries. Spanish architecture is, therefore, highly unique and interesting.

4. Argument   or   Non-argument:

   These are the things that must never be done. Never walk under a ladder. Never break a mirror. Never cross a black cat's path.

5. Argument   or   Non-argument:

When suicide rates decline, we can infer that people's lives are better adjusted. Accordingly, since suicide rates have been declining in recent years, we can infer that people have been better adjusted lately.

6. Argument   or   Non-argument:

Autistic children are occasionally helped by aversive therapy. But aversive therapy is sometimes inhumane. We should never do things that are inhume. So some types of therapy should not be provided to autistic children, even if it might help them.

7. Argument   or   Non-argument:

SSM Health plans to invest $500 million to build a new St. Louis University hospital and ambulatory care center. The new facilities, which will be located in the immediate vicinity of the existing 365-bed hospital near the midtown campus of St. Louis University, will be completed within five years, SSM officials said. "While the current hospital has served the community well, we have the opportunity to construct state-of-the-art academic facilities that incorporate the best practices in patient-centered design," said Bill Thompson, president and CEO of Creve Coeur-based SSM Health. "This significant investment will enable us to deliver an improved patient experience and even better care for our community."

8. Argument   or   Non-argument:

If money is necessary for effective political speech, as the Court has ruled time and again since 1976, and if money can be spent in unlimited amounts, even by corporations, as the Court ruled in Citizens United, then it follows that the obverse is equally true: The absence of effective amounts of money is a denial of effective speech. It creates two classes of Americans, those who can afford to participate effectively in elections and those who cannot. Such a classist system is un-American and unjust. That is why we must have real campaign finance reform.

9. Argument   or   Non-argument:

Defending the war on drugs may not be fashionable, but the fact remains that hardcore drugs should remain illegal. As long as hardcore drugs are illegal, they are harder to get, and the social stigma of being arrested deters many users.

10. Argument   or   Non-argument:

Contributions to relief organizations are often wasted. Food sent to war torn countries rarely reaches its destination, because food distribution is controlled by the warring groups, and these groups sell the food to buy weapons and ammunition.

Argument Evaluation:

For each of the following arguments, determine if it is: 1.) deductive or inductive, 2.) valid or invalid/strong or weak, 3.) sound or unsound/cogent or uncogent.

1. If today is Friday, then the weekend starts tomorrow. Today is Friday. Therefore, the weekend starts tomorrow!

	Deductive		Inductive	
Valid	Invalid		Strong	Weak
Sound	Unsound		Cogent	Uncogent

2. If today is Monday, then most teachers have to work today. Scott is a teacher and today is Saturday. Therefore, Scott probably has to work today.

	Deductive		Inductive	
Valid	Invalid		Strong	Weak
Sound	Unsound		Cogent	Uncogent

3. All people who suffer from cancer have to undergo painful treatments. Scott does not suffer from cancer (this is true). Thus, Scott probably doesn't have to undergo any painful treatments.

	Deductive		Inductive	
Valid	Invalid		Strong	Weak
Sound	Unsound		Cogent	Uncogent

4. Either death is a state of nothingness in which the dead no longer exist or death is some sort of transformation into another sort of existence. If death is a state of nothingness, then death is not bad. If death is a transformation into another sort of existence, then death must be good.

Therefore, death isn't bad. (Don't get hung up on the truth or falsity of the premises here. Just answer based on whether you believe the premises true or false. That will be fine.)

Deductive		Inductive	
Valid	Invalid	Strong	Weak
Sound	Unsound	Cogent	Uncogent

5. Most automobiles have four wheels. You drive an automobile. Therefore, your car probably has four wheels.

Deductive		Inductive	
Valid	Invalid	Strong	Weak
Sound	Unsound	Cogent	Uncogent

Proving Invalidity:

Put the following arguments into their logical form and then insert substitutions that prove the argument invalid.

1. If today is the greatest day of your life, then things will only get worse from here. Today isn't the greatest day of your life. Thus, things will be getting better for you.

2. Some people are rich and some people are greedy. Therefore, some rich people are greedy.

3. All dogs are mammals and all dogs are animals. For this reason, all mammals are animals.

4. If you have ever seen true beauty, then you can appreciate good artwork. You can appreciate good artwork. Therefore, you have seen true beauty.

5. All people who get violently angry at the drop of a hat are people who should be institutionalized. You do not get violently angry at the drop of a hat. Therefore, you should not be institutionalized.