

## EXERCISE SET 7

A. Characterize each of the following arguments as either inductively **strong** or **weak**.

1. Ninety percent of the people I interviewed in the CSUN student parking lot reported that they drive to school. I conclude that nearly all CSUN students get to campus by driving.
2. The ebb and flow of the tides has been occurring every day for millions of years. Therefore, the tides will continue to ebb and flow for the foreseeable future.
3. The elevation of Denver, Colorado is 5280 feet. I base this conclusion on two things: the *Encyclopedia Britannica* says that the elevation of Denver, Colorado is 5280 feet, and the sign on the highway leading into Denver calls Denver “the mile high city.”
4. I’ve played this same slot machine 20 times in a row without a hit. So, if I play just a few more times, I’ll get a hit.
5. You and I both have fair skin and freckles, and both of us get sunburned easily. We’ve both tried many of the same tanning products with the same (usually disappointing) results. I tried SuperTan Lotion and sat in the sun for three hours without burning. So, SuperTan Lotion will work for you, too.
6. If you want good gas mileage, don’t buy a red convertible. I have a red Corvette convertible that gets 12 miles to the gallon. And my brother has a red Ferrari convertible that gets only 10 miles to the gallon. Red convertibles just don’t get good gas mileage.
7. My Corvette is a red convertible and it gets very poor gas mileage. My brother’s Ferrari is a red convertible and it gets very poor gas mileage. My sister’s Miata is a red convertible. So, I’ll bet that my sister’s car gets very poor gas mileage.

B. Characterize each of the following arguments as either **strong** or **weak** and as either **cogent** or **uncogent**.

1. The ebb and flow of the tides has been occurring every day for millions of years. Therefore, the tides will continue to ebb and flow for the foreseeable future.
2. In 18 of the last 20 years, the Rose Bowl football game in Pasadena has been played in freezing weather. Therefore, next year’s Rose Bowl game in Pasadena will probably be played in freezing weather.
3. African-American women almost never win Academy Awards. Halle Berry is an African-American woman. So, Halle Berry has never won an Academy Award.

C. Which of the following statements are true? If any of the statements are false, show this by giving an example.

1. All cogent arguments are strong.
2. All strong arguments are cogent.
3. All weak arguments are uncogent.

4. All uncogent arguments are weak.
5. All weak arguments have conclusions that are probably *not* true.
6. No arguments with false conclusions are strong.
7. No arguments with false conclusions are cogent.
8. All cogent arguments have true conclusions.
9. No cogent argument can be weakened by adding further information to its premises.