SVGS Philosophy Workshop Group members:_____

Inductive arguments

Identify the type of each inductive argument below. Also, complete the conclusion.

1. Democracy does not work in a family with uneducated, impulsive children.

   Underdeveloped nations are like large families with uneducated, impulsive citizens.

   Conclusion:

   Type of inductive argument:

2. Evidence from two free maternity clinics in Vienna, established in 1846, to lower the rate of infanticide of illegitimate children:
   - Clinic 1 had an average maternal mortality rate of over 18% due to childbed fever. In this clinic, medical students went directly from their cadaver dissection lessons to the maternity ward to deliver babies.
   - The rate at Clinic 2 was considerably lower, averaging less than 3%.
   - Neither clinic required medical students to wash their hands before delivering babies.

   Two hypotheses were advanced.
   H_1 : The higher percentage of deaths of mothers in Clinic 1 was due to **cadaverous material** on the hands of medical students, which was introduced into the maternal blood stream during childbirth.

   H_2 : The higher percentage of deaths of mothers in Clinic 1 was due to the fact that the women being admitted into that clinic were less healthy than those admitted to the other clinic.

   The argument:
   Clinic 1 had an average maternal mortality rate of over 18% due to childbed fever.
   Clinic 2 had an average maternal mortality rate of less than 3% due to childbed fever.
   In Clinic 1, medical students went directly from their cadaver dissection lessons to the maternity ward to deliver babies without washing their hands._____

   Conclusion:

   Type of inductive argument:

3. Doctors at the Mayo Clinic have developed a scorecard (including patient weight, height, fasting blood glucose level, and daily exercise routines) based on which they predict that patients with a score of over 75 will develop Type 2 diabetes within 5 years, if they do not lower their scores. In the cases of 20 patients who had score over 75, and who maintained scores at least that high over the following 5 years, 15 developed Type 2 diabetes.

   Consider the following two hypotheses:
   H_1: Doctors using the Mayo Clinic scorecard have a 50-50 chance of making correct predictions about **t**he onset of Type 2 diabetes.
   H_2: Doctors using the Mayo Clinic scorecard have a 75% chance of making correct predictions about **t**he onset of Type 2 diabetes.

   The argument:
   Doctors using the Mayo Clinic scorecard (including patient weight, height, fasting blood glucose level, and daily exercise routines) predict that patients with a score of over 75 will develop Type 2 diabetes within 5 years, if they do not lower their scores.
   In the cases of 20 patients who had score over 75, and who maintained scores at least that high over the following 5 years, 15 developed Type 2 diabetes.

   Conclusion:

   Type of inductive argument:

4. We do not blame weather reporters for reporting bad weather.
   Newspaper and TV reporters report facts, just like weather reporters.

   Conclusion:

   Type of inductive argument:

5. Studying ravens to determine their colors, ornithologists compile these observations:

   - Out of 100 raven observations in North America, 98 were black and 2 were white.
   - Out of 100 raven observations in South America, 95 were black and 5 were white.
   - Out of 100 raven observations in Asia, 97 were black and 3 were white.
   - Out of 100 raven observations in Europe, 99 were black and 1 was white.
   - Out of 100 raven observations in Africa, 93 were black and 7 were white.
   - Out of 100 raven observations in Australia, 100 were black and none were white.
   - No ravens were observed in Antarctica.

   Formulate two hypotheses based on this data:

   H_1 :_____

   H_2 :_____

   The argument
   98% of North American, 95% of South American, 97% of Asian, 99% of European, 93% of African, and 100% of Australian ravens observed are black._____

   Conclusion:

   Type of inductive argument:

6. A man is found murdered in his study on a Sunday morning. The police investigate, and are given the following alibis:
   - The murdered man's wife says she was sleeping in that morning.
   - The butler says he was cleaning out the garage.
   - The gardener says he was picking vegetables.
   - The maid says she went for a walk to get the mail.
   - The cook says he was preparing breakfast.

   The police obviously have 5 hypotheses about the identity of the murderer. An arrest is made immediately. Which hypothesis best fits all the evidence? What argument will be given to the prosecutor to justify the arrest?

The argument
A man is found murdered in his study on a Sunday morning.
The only suspects are the man's wife, who said she was sleeping, the butler who claimed to be cleaning out the garage, the gardener who said he was picking vegetables, the maid who claimed she went for a walk to pick up the mail, and the cook who said he was preparing breakfast._____

Conclusion:

Type of inductive argument: