Roaches

THIS IS A CRITICAL THINKING COURSE Directions: Write a brief essay using the following format: Answer the question below. The assignment should be submitted using Microsoft Word with default margins, using 12-point Times New Roman black font, be double-spaced, and be in essay format. Default Margin Formatting: Alignment: Left Outline Level: Body Text Indentation: Left & Right: 0 Special: None By: Leave blank Spacing: Before & After: 0 Line Spacing: Double At: Leave blank Read the following fictitious speech by Dale Gribble. Answer the questions that follow. Speech I am a new homeowner and let me tell you- it is always work! I am a professor of mathematics and statistics and that is how I filter everything. I had a hypothesis about German cockroaches that recently infested my Florida house. I have a hypothesis that I tested. I wondered if every cockroach infesting my house was a German cockroach, or another type of cockroach. I concluded that approximately 70% of the cockroaches that infested my house were German cockroaches. How did I arrive at that conclusion? I consulted the Florida Department of Agriculture and learned that 50% of the cockroaches in Florida are German cockroaches and 70% of the cockroaches found in Pasco County, Florida, (where I live) are German cockroaches as well. I then generalized that nearly all of the cockroaches in Pasco County, Florida, are German Cockroaches. I also counted 10 cockroaches of the tens of thousands infesting my house, and I noted that 7 of the 10 cockroaches were German cockroaches. My cockroach infestation is analogous to the Great Rattle Snake Infestation of 2010. Eastern Diamondback Rattle Snakes infested my subdivision that year. There were 10,000 snakes located and killed- and 9,990 of them were Eastern Diamondback Rattle Snakes. Both infestations were similar and nearly every one of the invaders was of one particular type.Questions:1. Does Dale provide an informal or formal inductive argument? Why?2. Does the sample size that Dale discusses logically lead to his conclusions? Why or why not?3. Are the generalizations that Dale makes accurate based upon the sample size and confidence level? Why or why not?4. Are the analogous arguments that Dale makes accurate based upon the sample size and confidence level? Why or why not?