**Please make sure to also add your explanations (if any) for each question either directly in the excel file as text, or in a separate word file. For each question, you must show your work and not just present the final answer or conclusion.**

1. Consider the “Room Cleaning” defect shown in the “Summary Counts” tab. Verify from the given data that room cleaning is in statistical control. Identify the type of chart you selected and show your calculations for control limits. Analyze if observations are in control or out of control. Are there any weekly patterns that stand-out from your analysis?
2. Consider the days of the week. Are Sundays statistically different from other days of the week?
3. Consider the Sunday data for room cleaning, is the process in statistical control on Sundays? If no, suggest at least three reasons that you think may be responsible for problems on Sunday.