A researcher, thoroughly oblivious to the metaphorical undertones, decides to examine if Meghan Trainor’s song is truly better when “all about that bass.” He rated student satisfaction (1 to 5 scale with higher numbers being more satisfied) after listening to her song with mostly treble features, and again with mostly bass features. Here are their responses (below). Are students more satisfied with mostly bass using the p<.01 significance level? List the 6 hypothesis testing steps.

|  |  |
| --- | --- |
| All About That Treble | All About That Bass |
| 2 | 4 |
| 1 | 2 |
| 5 | 5 |
| 3 | 5 |
| 3 | 4 |
| 2 | 3 |
| 5 | 4 |

|  |
| --- |
| Assumptions: |
| Step 1/2: |
| Step 3: |
| Step 4: |
| Step 5: |
| Step 6: |
| Confidence Interval: |
| Effect size: |

The city council is trying to determine if they should change disposal fees for waste services. They are comparing the number of trash bags before and after the last change to see if people reduced waste. A significant reduction in waste would relief their trash truck drivers and save money. Should they increase the fee at the p<.05 level?

Before After

|  |  |
| --- | --- |
| 5 | 8 |
| 6 | 4 |
| 3 | 1 |
| 4 | 1 |
| 7 | 5 |
| 4 | 5 |
| 5 | 4 |
| 7 | 3 |

|  |
| --- |
| Assumptions: |
| Step 1/2: |
| Step 3: |
| Step 4: |
| Step 5: |
| Step 6: |
| Confidence Interval: |
| Effect size: |