1. Two sections of a class in statistics were taught by two different methods. Students scores on a standardized test are shown in the table below:

Do the results present evidence of a difference in the effectiveness of the two methods? What is the test statistics?

|  |  |  |  |
| --- | --- | --- | --- |
| Class A | | Class B | |
| 74 | 76 | 78 | 79 |
| 97 | 75 | 92 | 76 |
| 79 | 82 | 94 | 93 |
| 88 | 86 | 78 | 82 |
| 78 | 100 | 71 | 69 |
| 93 |  | 85 | 84 |
| 94 |  | 70 |  |

1. Construct a 95% confidence interval on the mean difference in the scores for the two classes in question 1.
2. The following table shows the observed pollution indexes of air samples in two areas of a city. Test the hypothesis that the mean pollution indexes are the same for the two areas.

|  |  |
| --- | --- |
| Area A | Area B |
| 2.92 | 1.84 |
| 1.88 | 0.95 |
| 5.35 | 4.26 |
| 3.81 | 3.18 |
| 4.69 | 3.44 |
| 4.86 | 3.69 |
| 5.81 | 4.95 |
| 5.55 | 4.47 |