

# Two sample key

UNK Stats

2025-11-10

**NOTE:** Don't forget to write down your  $t$ -values,  $df$ , and  $p$  values in your answer. Your full sentence conclusion should relate back to the original hypothesis.

This is a minimal document to guide you; data other than  $p$  have been omitted to not bias you on your approaches.

## Question 1

The test is significant ( $p = 0.001$ ).

The test statistic is -4.03.

## Question 2

The test is not significant ( $p = 0.20$ ).

The test statistic is -1.32.

## Question 3

The test is not significant ( $p = 0.06$ ).

The test statistic is 1.64.

## Question 4

The test is significant ( $p < 0.0001$ ).

The test statistic is 49.

## Question 5: Bacteria counts

The test is not significant ( $p = 0.15$ ).

The test statistic is 907.5.

## Question 6: Flint, Michigan

The groups are significantly different ( $p = 0.007$ ).

The test statistic is -2.86.

No, there is only 8.7% (0.09) of households with bad lead in this sample.