

These questions test your understanding of the **Explanation** tab for the **Kruskal-Wallis Test** page of your **Math 325 Notebook**.

Have you read through the Kruskal-Wallis **Explanation** tab?

☒ Yes

☐ No

How many steps are there to calculating a p-value for the Kruskal-Wallis Test?

6

Note that R does all of these steps for us behind the scenes when we use the code `kruskal.test()`. However, it is enlightening to understand what R is doing when we run that code.

Match the following letters with their meaning in the Kruskal-Wallis Test.

6 ▼ n_i	3 ▼ N	1 ▼ C
2 ▼ \bar{R}_i	5 ▼ H	4 ▼ R_i

1. The number of samples being compared.
2. The mean of the ranks for each sample i .
3. The total number of observations from all samples.
4. The sum of the ranks belonging to sample i .
5. The test statistic of the Kruskal-Wallis Test.
6. The size of sample i .

The p-value of the Kruskal-Wallis Test is found using the **chi squared** distribution with **C - 1** degrees of freedom as an approximation to the actual nonparametric distribution of the test.

In the bottle-cap data, the p-value = **0.059**. This is **insufficient** evidence to conclude that any of the groups are from different distributions. In other words, we will continue to assume that the groups all come from the same distribution.