



Hypothesis

H0: there is no difference in the distribution between *sulfites* and *quality*, when grouped into [3,4,5,6] (standard) and [7,8] (premium).

H1: there is a difference in the distribution between *sulfites* and *quality*, when grouped into [3,4,5,6] (standard) and [7,8] (premium).

Test

I chose the Mann–Whitney U test because the *standard* group showed signs of non-linearity in the QQ plot.

Conclusion

We can reject the null hypothesis. The p-value is $9.235903628459924e-30 < 0.05$.