

PENDALAMAN MATERI 3

CONTEXT

10.144 Measuring Treadwear. R. Stichler et al. compared two methods of measuring treadwear in their paper “Measurement of Treadwear of Commercial Tires” (*Rubber Age*, Vol. 73:2). Eleven tires were each measured for treadwear by two methods, one based on weight and the other on groove wear. The following are the data, in thousands of miles.

Weight method	Groove method	Weight method	Groove method
30.5	28.7	24.5	16.1
30.9	25.9	20.9	19.9
31.9	23.3	18.9	15.2
30.4	23.1	13.7	11.5
27.3	23.7	11.4	11.2
20.4	20.9		

QUESTION 1

10.150 Measuring Treadwear. Refer to Exercise 10.144 and find a 95% confidence interval for the mean difference in measurement by the weight and groove methods.

QUESTION 2

Use paired Wilcoxon signed-rank test

At the 5% significance level, do the data provide sufficient evidence to conclude that, on average, the two measurement methods give different results?