

LATIHAN UJI F UNTUK PERBANDINGAN VARIANSI

Bagian A

5. Arbitron Media Research Inc. conducted a study of the iPod listening habits of men and women. One facet of the study involved the mean listening time. It was discovered that the mean listening time for men was 35 minutes per day. The standard deviation of the sample of the 10 men studied was 10 minutes per day. The mean listening time for the 12 women studied was also 35 minutes, but the standard deviation of the sample was 12 minutes. At the .10 significance level, can we conclude that there is a difference in the variation in the listening times for men and women?
6. A stockbroker at Critical Securities reported that the mean rate of return on a sample of 10 oil stocks was 12.6 percent with a standard deviation of 3.9 percent. The mean rate of return on a sample of 8 utility stocks was 10.9 percent with a standard deviation of 3.5 percent. At the .05 significance level, can we conclude that there is more variation in the oil stocks?

Bagian B

10.47 A bank with a branch located in a commercial district of a city has the business objective of improving the process for serving customers during the noon-to-1 P.M. lunch period. To do so, the waiting time (defined as the time elapsed from when the customer enters the line until he or she reaches the teller window) needs to be shortened to increase customer satisfaction. A random sample of 15 customers is selected (and stored in **Bank1**), and the results (in minutes) are as follows:

4.21 5.55 3.02 5.13 4.77 2.34 3.54 3.20
4.50 6.10 0.38 5.12 6.46 6.19 3.79

Suppose that another branch, located in a residential area, is also concerned with the noon-to-1 P.M. lunch period. A random sample of 15 customers is selected (and stored in **Bank2**), and the results (in minutes) are as follows:

9.66 5.90 8.02 5.79 8.73 3.82 8.01 8.35
10.49 6.68 5.64 4.08 6.17 9.91 5.47

- a. Is there evidence of a difference in the variability of the waiting time between the two branches? (Use $\alpha = 0.05$.)