1. Drug developers wish to study the response rate p of a new drug. This drug was tested on 40 patients and 20 patients responded. Suppose there is a standard drug currently being used with a response rate of 30%. Test the hypothesis that the new drug is **better** in terms of response rate.
2. Consider the built-in R dataset “PlantGrowth”. Data were collected on the weight of plants under control and two treatment conditions. Is there any difference between the median plant weight among the three groups? If so, which particular groups differ in median plant weight?
3. Consider the built-in R dataset “lung”.
4. Use command ‘?lung’ (without quotes) in R to obtain information about the dataset.
5. Plot the Kaplan-Meier curves by sex. Use informative labels and legends.
6. What is the estimated (and 95% confidence interval for) median survival time by sex?
7. Is there a difference in survival function between male and female patients?