1. Continue on Problem 2 of Tutorial 3. A primary concern of the study is to investigate whether or not the survival rates are the same for patients with aneuploid tumor and patients with diploid tumor. Use the data set `tongue.txt` to carry out the following tests.

   (i) Test the hypothesis whether or not the hazard functions are the same for patients with aneuploid tumor and patients with diploid tumor, using the log-rank test. State the null hypothesis and the alternative hypothesis. Give the formula of the test statistic and explain the meaning of the variables involved in the formula. Use the R function `survdiff` to compute the test statistic and draw your conclusion.

   (ii) If the interest is in detecting differences in survival rates between the two types of cancers soon after the first treatment of the cancer, repeat part (i) using a more appropriate test.

2. Continue on Problem 1 of Tutorial 3. The patients are classified by the history of prior IV drug use which is indicated in the data set `homhiv1.txt` by the variable `DRUG` (1 = Yes, 0 = No).

   (i) Draw the two survival curves for the patients with the drug use history and the patients without the drug use history on the same graph.

   (ii) Test the null hypothesis that the survival rates are the same for the patients with the drug use history and the patients without the drug use history, using the log-rank test.