HOMEWORK # 1

1. What are special features for survival analysis?

2. What is the interpretation of the hazard function?

3. The following data are remission times, in weeks, for a group of 30 luekemia patients in a certain type of therapy.

```
------------------------------------------------------------------
Survival time in weekes
------------------------------------------------------------------
1  1  2  4  4  6  6  6  7  8  9  9  10  12  13  14  18  19  24  26
29  31*  42  45*  50*  57  60  71*  85*  91
-----------------------------------------------------------------
where starred quantities denote censored observations.
```

   Assume this lifetime follows an exponential distribution.

   (a) Estimate the mean remission time and its 95% confidence interval.

   (b) Estimate the median remission time and its 95% confidence interval.

   (c) Estimate the probability of a remission lasting more than 26 weeks.